CONFERENCE
ON
SELECTION TECHNIQUES

ALLERTON HOUSE, MONTICELLO
NOVEMBER 17–18, 1949

SPONSORED BY

THE BUSINESS MANAGEMENT SERVICE OF THE COLLEGE OF COMMERCE

E DEPARTMENT OF MECHANICAL ENGINEERING OF THE COLLEGE OF ENGINEERING

THE DEPARTMENT OF PSYCHOLOGY OF THE COLLEGE OF LIBERAL ARTS AND
SCIENCES

THE INSTITUTE OF LABOR AND INDUSTRIAL RELATIONS

THE DIVISION OF UNIVERSITY EXTENSION

OF
THE UNIVERSITY OF ILLINOIS
URBANA, ILLINOIS

CONFERENCE PROGRAM

THURSDAY, NOVEMBER 17

9:00   Welcome
        C. M. Louttit, Assistant to the Provost,
        University of Illinois

9:15   Orientation to the Conference
        Thelma B. Fox, Research Assistant in
        Labor and Industrial Relations,
        University of Illinois

9:30   WHY A SELECTION PROGRAM?
        Ross Stagner, Professor of Psychology in
        Labor and Industrial Relations, University
        of Illinois

10:15   JOB SPECIFICATIONS
        Leo C. Pigage, Associate Professor of
        Mechanical Engineering in Labor and
        Industrial Relations and Extension,
        University of Illinois

10:45   Work Groups
        Topics: WHY A SELECTION PROGRAM?
                JOB SPECIFICATIONS
          Thelma B. Fox

          Robert D. Loken, Professor of Management,
          Business Management Service, College of
          Commerce, University of Illinois

          Wesley Osterberg, Assistant Professor of
          Psychology, College of Liberal Arts and
          Sciences, University of Illinois

12   Lunch

1:30   THE USE OF THE APPLICATION BLANK
        Paul F. Gorby, Manager of Central Personnel
        Services, Marshall Field & Co., Chicago,
        Illinois

2:15   Work Groups
        Topic: THE USE OF THE APPLICATION BLANK
          Same chairmen

4:30   ADMINISTRATION OF SAMPLE TEST ITEMS
        DEMONSTRATION OF PERFORMANCE TESTS – DEPARTMENT
          OF PSYCHOLOGY STAFF

6:30   Dinner

        Address: SELECTION OF EXECUTIVES
                Carroll L. Shartle, Professor of
                Psychology, Ohio State University

FRIDAY, NOVEMBER 18

9:00   THE USE OF TESTS IN SELECTION
            Stanley E. Seashore, Consulting Psychologist,
            A. T. Kearny and Company, Chicago, Illinois

9:45   Work Groups
            Topic: THE USE OF TESTS IN SELECTION
                    Same chairmen

12   Lunch

1:30   EMPLOYMENT INTERVIEWS
            Ira B. Cross, Jr., Executive Officer,
            Robert N. McMurry and Company, Chicago,
            Illinois

            Demonstration Interviews:
            Ira B. Cross, Jr.

            Robert B. Buchele, Assistant Professor of
            Management, College of Commerce, University
            of Illinois

            General Discussion

4:00   THE TOTAL SELECTION PROGRAM
            Ross Stagner

4:30   Adjournment

UNIVERSITY OF ILLINOIS
Personnel Management Conferences, 1949
S e l e c t i o n   T e c h n i q u e s
N o v e m b e r   1 7 - 1 8

WHY A SELECTION PROGRAM?

by Ross Stagner
Professor of Psychology in Labor and Industrial Relations
University of Illinois

This year, over 2,000,000 young Americans joined the labor force.
This means that 2,000,000 young men and women are out looking for jobs for
which they are qualified and at which they can be successful. During 1949,
almost 500,000 college graduates joined the labor force. They are going to
be wanting job opportunities under conditions which will be favorable for
the success about which they have been dreaming.

I would like to suggest that it is a very misleading kind of pro-
cedure to talk about these individuals in terms of a labor force. These are
real human beings. John Smith, who is just out of college and looking for a
lifetime occupation, is more than a statistic; he is a real human being who not
only needs a job; he also needs proper selection by his employer in order to
fit into a channel where he is likely to attain success.

What does it mean to John Smith to find a job? All of you are aware
of the feeling you have had when you were out looking for work and not sure you
were going to find it. What does it mean to John Smith to find the right job?
It means good earnings, security, a chance for promotion and an opportunity to
do the things that he has been dreaming about doing. How well businessmen
handle the job of employee selection is one factor which is going to determine
what happens to John Smith and all of his millions of brothers and sisters.

Let's look at this question also from the side of the company. Every
year each employer has many applications for jobs. Relatively few of these
applicants are hired in a so-called normal year. To take a specific company
with which I am familiar, the Boston Consolidated Gas Company before the war
used to have an average of about 20,000 applications for positions. Out of
these 20,000, they used to hire about 400. This gives us what the statisticians
call a selection ratio of 2%. What does it mean to the 19,600 people who were
not employed? What does it mean to the company to get the best possible
individuals for these positions which are open? Specifically, we might point
out that if the 19,600 rejected applicants are turned away with the feeling
that they have been treated unfairly, that they have been discriminated
against, that only friends of the boss are being hired, it may create a very
serious public relations problem for any business enterprise. In the same
way, it is fairly obvious that if the 400 individuals are so chosen that they
fit smoothly and efficiently into their new jobs, this will be a great economic
benefit to the employer. It will mean a smoothly functioning work force,
freedom from grievances and employee problems, and in various other ways will
be beneficial to the company.

What does employee selection mean to the American public in general?
The American public is made up of workers, businessmen, professional people,

farmers, etc. Some of them are looking for jobs, some of them are looking for workers to employ, but all of them are buying commodities from business and desiring services. In other words, they are customers. What does it mean to members of the American public to have the right man in the right job? Obviously it means lower prices, more efficient production, more satisfactory service, pleasant relations with the representatives of the company and freedom from inconvenience and irritation due to strikes and labor troubles.

I should like to suggest, therefore, that the ramifications of a good selection program are very wide. A good selection program can be of significant benefit to the company which installs it. It can be highly valuable not only to the worker who is selected and placed on the job for which he is well suited, but it is actually of value to the worker who is not employed. It would be a disservice to this young man to hire him for a position where he was sure to be a failure. It would even be in some sense not valuable for him to be employed in a position where he could do mediocre work when actually there might be some other position in another company where he would be far more successful. Thus, we can say, that for the main participants in the selection process, namely, the company and the worker, the benefits of a good selection program are very extensive. Even considering the question from the point of view of the general public, a selection program has benefits which are not lightly overlooked. Thus, I think we can say that this is another one of those cases in which by doing a job and doing it well, we are not serving the interests of capital, or the interests of labor, or the interests of the public, but the interests of all three.

Virtually all of you are here as employers, or as representatives of employers. Let me raise with you some general questions about the amount of money industry spends on equipment, versus the amount it spends on payrolls. And then I want to ask, how much could be saved by improving the type and operation of equipment, as compared with improving the quality and efficiency of workers? Let me take a company with which I am quite familiar. It had a pre-war sales volume of about 150 million dollars—now probably doing about the same business, but charging 300 million dollars. In 1941 this company had about 50 million dollars invested in plants and equipment. They also had an annual payroll of about 50 million dollars. Now the capital investment equivalent of this payroll cannot be computed, because we cannot place a value on human beings. But we do know that the company estimated the annual cost of equipment at a little over 3 million dollars yearly, assuming a life expectancy of 14 years. In other words, an improvement of 10% in equipment efficiency would be expected to net the company about 300,000 dollars annually. Contrast this with the saving that could result from a 10% improvement in the quality and functioning of personnel—the sum of 5 million dollars.

Now, it is not at all uncommon for business men to talk of reducing equipment costs by 5 to 10%, but it is virtually unheard of that such an improvement in human functioning is possible. Yet, such changes are feasible. It has been found, by actual investigation, that savings of such magnitude can be made. (Let me insert here that they cannot be made by cracking the whip of fear and insecurity over the heads of the workers.) Such improvements are likely to be associated with changes more extensive than selection alone, but selection is an indispensable first step.

What are some of the different kinds of savings that are made possible by good selection and placement on the job? One such factor obviously is

training costs. Every new worker must be trained to do a good job. If the employee is adequately selected, the training time will be reduced. Hiring square pegs to fit into round holes is at best an inefficient procedure and the amount of training required to help this square peg do even a moderate job of fitting in will be excessive. Training is expensive. Estimates of the cost of training employees in different industries range from a low of $35 to $50 for unskilled workers to estimates as high as $1000 for relatively skilled and highly responsible employees. If an adequate selection program can reduce this cost by even a moderate percentage, the cost of the program itself will have been repaid within a fairly short period of time.

Another aspect of this same point is the reduction of turnover. A number of investigations have shown that when employees are selected by the best available methods, turnover can be reduced very materially below its previous level. To take a concrete illustration, a well known restaurant chain was bothered by a serious turnover problem in its cashiers. The work of the cashier in these restaurants was very elementary and monotonous. The result was that there was a very high rate of turnover, with a large number of these young women leaving their jobs within a period of two weeks to two months after beginning employment. This was not only expensive, but also disruptive of service and very unsatisfactory from the management point of view.

A program of simple psychological testing was introduced, although the results were not at first used for selection purposes. In a follow-up after a few months of activity it was found that the girls leaving employment as cashiers fell into two groups: Those with IQ's of 100 or more, who were of average or above average intelligence, and another group with IQ's of 85 or below, those who were distinctly not intelligent enough to handle the requirements of the job. Thus it appeared that turnover in this job was due to two factors: One, the possession of more ability than was necessary, causing the employee to be bored and dissatisfied with the work requirements; and two, the possession of insufficient ability to do the job satisfactorily. A selection program was then introduced, using only those individuals from the middle of the ability range, with IQ's of about 85 to 100. The result was a sudden and very significant decrease in the turnover rate.

It is also obvious that a good selection program can help management in dealing with such problems as absenteeism, poor attitude on the job, failure to cooperate with supervision, slow-downs, and other manifestations of dissatisfaction on the part of the employee. When a worker is placed on duties for which he does not have the necessary ability, information, interest, or personality, he is likely to feel frustrated, dissatisfied, and unhappy. This will cause him to be quick to find things to complain about. He will not be inclined to cooperate with his supervisor. If he has the slightest excuse for failing to come to work in the morning, he is likely to accept it and stay away from the job. Thus, it would seem plausible and in fact, experience confirms this expectation, that the introduction of a sound selection program can lead to a variety of benefits from the management point of view.

It is even interesting to note that workers like the company better if a good selection program is in operation, and that better applicants come to such an employment office. Workers usually interpret careful selection as an indication that the company really recognizes the importance of the individual employee, and they react favorably to that interest by management.

What do we need to know about the applicant if we are to do a good job in selection? This is different for different jobs. We do not need the same information in picking a new janitor as in hiring a new research engineer. We would not apply the same standards for a good salesman as for a good bookkeeper. So first, we need data on the _job_. This topic we shall call _job specifications_. We must try to learn what kinds of people do well at each job, stick to it, and so on. These specifications will provide us with a basis for selecting new employees.

In general, we can say that _ability_, _information_, _motivation_ and _personality_ are important to every job. Naturally we think first of ability. A man must have capacity, not only to learn his present duties, but to grow on the job. In some cases too much capacity is not desirable, if the duties are dull and there is no prospect of promotion. In other cases we must select a person with the ability not only to do this job, but also to move up the ladder.

Often a position also requires specific skill or information. When we look for a machinist, we want one already trained, not just a man who has mechanical ability. If we want an accountant or a chemical engineer, the record of his education may tell the story. But it is usually wise to interview the man about his training, or even to give him a written test.

Much remains to be done, in a good selection program, after we have found that the applicant can actually do the work. What about motivation? How much effort will he exert to do a good job? Will he be a clock-watcher or an eager beaver? Will he do the bare minimum, or will he go out of his way to get everything done that needs doing?

One approach to motivation comes through the study of _interests_. An outdoors man cannot be expected to work well at a desk for long hours. A girl who hates arithmetic will not be a good statistical clerk. Some people like detail, fine work; some get restless on this task. One man likes selling, another prefers a service job. Find a man's interest and you have a key to his motives.

Another phase of motivation can be studied through work habits and personal history. Has the applicant flitted from job to job? Does he have personal responsibilities to hold him at work? Turnover is higher among single than married men. Why? Because, for one thing, the single man can quit if he is slightly annoyed about something, whereas the married man will be more likely to stick through some difficulties and frustrations. How much does the applicant _want_ the rewards which will be his for doing a good job? At present we try to study a man's pattern of motives, the things he wants and will work hard to get, largely by a deep personal interview. One of our sessions will be devoted to a sample of how this can be done.

Finally, you may well need to size up the applicant's personality. Most of us do this more or less automatically in hiring. If the person impresses us, is smooth, friendly, likeable, we assume he has the right personality for the job. There are two things wrong with this procedure. First, we forget that different jobs call for different personalities; an inspector has different situations to face from those met by the foreman. Each job should have its own set of personality specifications. Second, many of us have acquired very misleading standards for judging personality. I remember a story told me by the
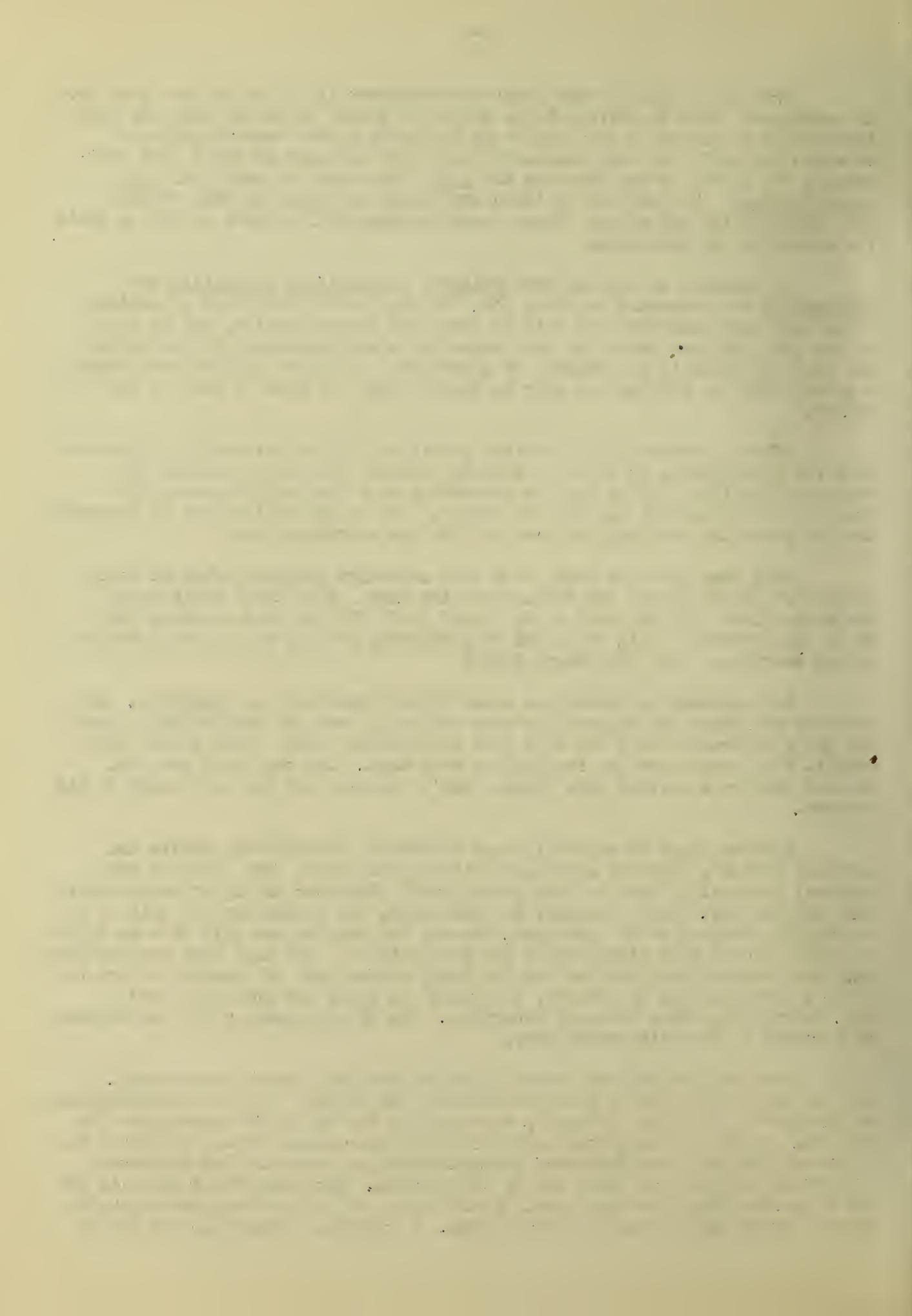
medical director of a large corporation, about the hiring practice of the
personnel manager. He found a lot of girls on medical exam with hair dyed red.
On investigation he learned that the personnel manager believed that red heads
were energetic and industrious, so he was hiring them in preference to blondes
and brunettes. The word got around, and applicants were dyeing their hair! Now
you know, and I know, that color of hair is not a clue to personality. But
many judgments about personality are based on just such false notions -- and we
may not even know we are using them!

Some of these problems in selection are best met by the use of written
or performance tests, but I would not want to give you the impression that
only psychological tests provide for satisfactory selection purposes. As we
shall try to make clear in the sessions today and tomorrow, there are many
different devices which business can use for selection of employees. The
application blank with well chosen bits of biographical information, is one
of these methods. After all, what better prediction do we have of what a person
is going to do in the future than what he has done in the past? Anyone who has
done any substantial amount of employment work, on the other hand, knows that
many questions asked on the application blank are never even checked by the
person doing the hiring. It may very possibly be that there is a great deal of
useless information on the application blank and conversely, many questions,
which should be asked, have not been included. We will, therefore, devote some
time to a consideration of different kinds of application blanks in relation-
ship to different kinds of jobs and see whether or not there are ways by which
these instruments can be improved.

Another method which has great value in selection of employees is the
interview. Almost all of us have the feeling that we can judge human nature.
In fact, many individuals feel that they do not need any advice on selecting
employees because they have been studying human nature for the last 50 to 75
years, more or less, and feel that they know all about it. I shall not bore
you by giving you illustrations on how frequently and how far some of these
individuals miss. The fact that errors in hiring are constantly occuring even
when these so-called experts on human nature do the interviewing is ample
evidence that an interview, in and of itself, is no guarantee of good selection.
However, the interview, if properly conducted, can give information which cannot
be gotten by any other method. It is obvious, for example, that if we are
going to try to evaluate the personality of the applicant, and particularly his
effect on other people, something like the interview is absolutely necessary.
Our reaction to him in a face to face situation is a pretty good indicator of
what other people are likely to feel in a similar situation. So, if we are
selecting salesmen, retail clerks, receptionists and other individuals who
have to deal with customers and the public, the interview is obviously a very
valuable device. We are going to consider some of the variations on the
interview technique and give you a demonstration of a highly useful and
valuable type of interview as a special feature of tomorrow's session.

Psychological tests are, in my opinion, something like the scientific
tests of materials quality which are used by every large industry. We wouldn't
dream of buying a carload of steel without some kind of careful testing of the
material to see to it that it comes up to specification. No purchasing agent
in his right mind would buy chemicals or any other kind of industrial material
without a testing program. Yet in many instances we hire employees, who make
up by far the largest item of our operating costs, with no attempt to test
their specific qualities. One of the reasons for this, of course, is that
psychology has not yet provided us with tests which are adequate for all phases

of human nature. In my opinion, to reject the testing program entirely, simply because it is not yet perfect is rather like throwing the baby out with the dirty bath water. We can use psychological tests in a limited way as one of the devices for improving selection even though it is not practical at the present time to get an entirely satisfactory selection program by the use of tests alone.

Another reason why tests are not widely used is because hiring executives prefer to follow their personal likes and dislikes. You may have heard the story of the psychologist who was trying to convince a business man that he should install a testing program. The executive preferred to hire the girl with the big blue eyes!

Now the big thing to keep in mind, in all this discussion of employee selection, is: what is the purpose of the business? If you are in business primarily to enjoy looking at beautiful girls, then the method of selection just described is appropriate. But if you believe in an efficient organization doing a good job for your customers, then that selection program is wrong.

We can't talk about all phases of psychology in personnel work at the same time. So I can't digress here to speak of all the precautions you will have to observe if you are to get the maximum benefit from a good selection program. Let me just insert a few words of warning about what a selection program will not do.

It will not keep union organizers out of your plant. A few companies, I regret to say, have attempted to set up programs of psychological testing and interviewing calculated to keep out potential union men. These attempts have failed, and I suspect that they will continue to fail. In the last analysis, workers organize into unions to solve certain problems about which they are concerned. The only way management could avoid this would be to solve all these problems first, and that would call for a level of mental acuity about which even psychologists have only the foggiest notion.

Secondly, it will not keep wages down. Demands for wage increases are related to many factors besides the price index, and in fact, the only man who would not occasionally want a wage increase would be one who wasn't much use in the average company. A selection program will help you to get more for your money; it will not work if coupled with a sub-standard wage scale.

Third, it will not end problems of training and supervision. The best of material needs processing; the best of workers will need training and instruction, guidance in doing the job, and help in solving human relations problems. The selection process may help you get good supervisors, but they in turn must learn the importance of treating every worker as a human being with psychological characteristics which must be handled with respect. The only difference between human beings and the atom bomb is that, once we get the explosive components of the A-bomb separated, there is no danger until they are put back together. With human beings, we solve one problem only to find another coming up which threatens an explosion.

In brief, selection must be tied in with management policy at the top level. If top management understands the importance of employees as individual human beings, it is likely that personnel, production, sales, accounting, and other departments and policies will fit well together. If top management treats employees merely as labor unit costs on a balance sheet, there will probably be trouble.
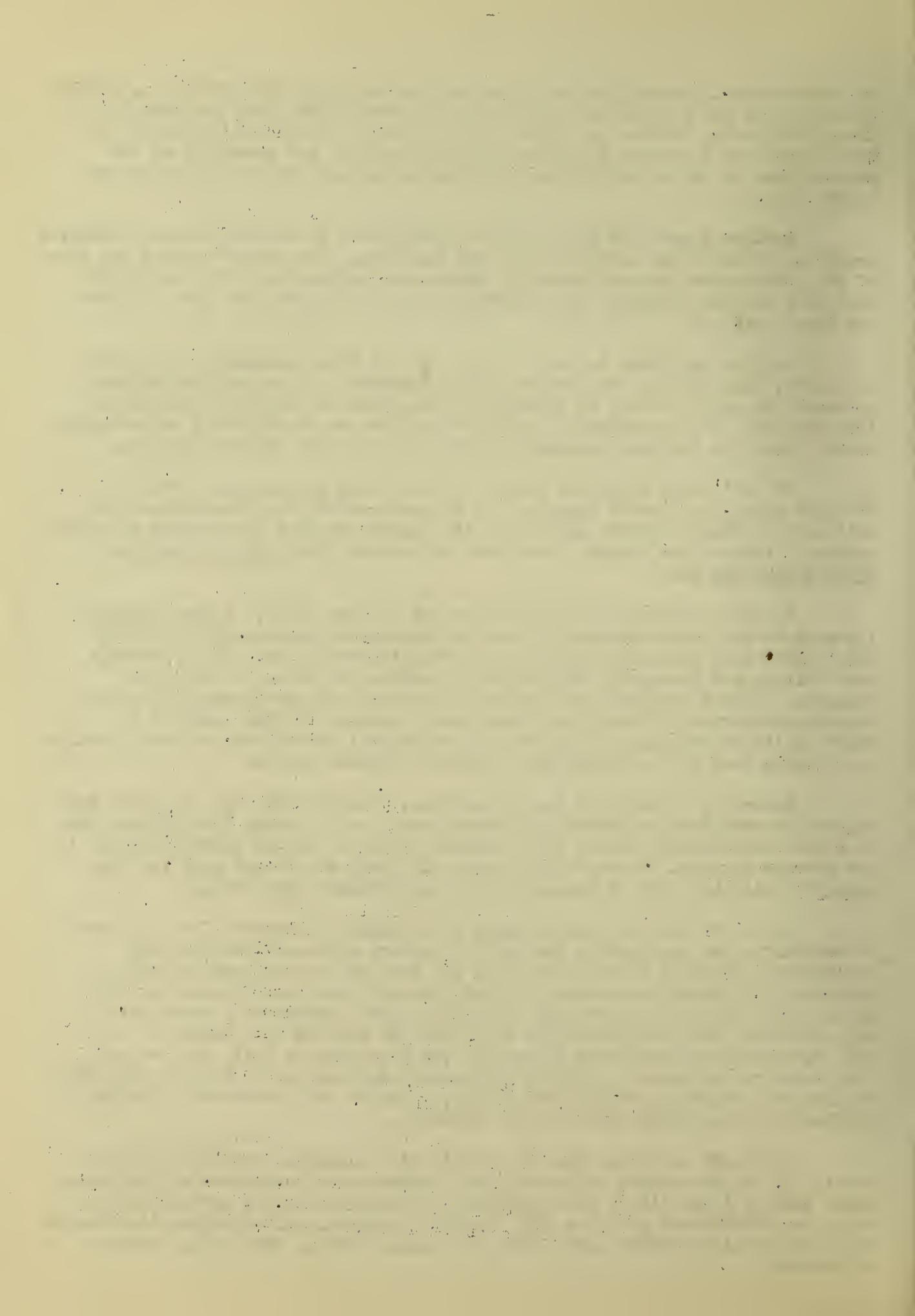
In a sense, then, we can give a simple twist to the question, why have a better selection program? We can simply ask, why are you in business? If, as I believe, most of you are in business to provide honest value and efficient service to the American people, then you need a good selection policy to implement that purpose. First of all you can reduce costs, reduce prices and improve quality in this way. Secondly, you need a selection program because jobs require different abilities in the people who hold them. Third, you need a selection program because people who are in the wrong jobs become frustrated, dissatisfied and belligerent. Finally, you need a selection program because we are all human beings, all people working together, and the only reason for having business and industry at all is to serve the needs of people. We believe that our democratic way of doing things will lead to more happiness for more people in the long run. But if we cannot work things out in such a way that people can enjoy their work, then we might as well join the Russians and make a man take whatever job needs him, without regard to his ability or wishes. Selection, in other words, can be an essential part of a good way of life for everyone. It can benefit the business man, the worker, and the customer. A good selection program is good for everybody.

UNIVERSITY OF ILLINOIS
Personnel Management Conferences, 1949
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JOB SPECIFICATIONS

Leo C. Pigage, Associate Professor of Mechanical Engineering in
Labor and Industrial Relations and Extension, University of Illinois

INTRODUCTION:

A basic requirement in selecting (or purchasing) anything is to have
the specifications for what you want as exact as possible. The purchase of a
person's services should be no exception. However, we are inclined to dismiss
principles exercised in other areas of business transactions as not applicable
in personnel practices. Such dismissal is wrapped up with a shrug and blamed
upon the complexity of human nature and the corresponding difficulty of
measurement. This dismissal sounds reasonable, yet recent advances in personnel
practices do not substantiate such an attitude. But, mainly, the fault lies
in the failure to prepare careful and as accurate a set of specifications for
each job as is possible at the time.

BASIC:

Before discussing job specifications as such, one should realize that
many uses can be made of the basic data from which the specifications come.
Specifications do not, and should not, exist in a vacuum. In any plant there
will be found various combinations of tasks which go to make up a position.
In turn, positions composed of allied tasks can be classified as jobs with the
ultimate grouping of similar jobs resulting in an occupational classification.
Each has its specifications. This is illustrated in Figure 1 below.

```
Task                                    -Specifications
   | (Such as clean a machine)             (appears in the form
   |                                         of motion study,
   V                                         narrowly drawn.)

Position                                -Specifications
   | (Such as set, operate and clean        (appears in the form
   |    a machine)                           of motion study and
   V                                         basic requirements
                                             rather narrowly drawn.)

Job                                     -Specifications
   | (Such as several persons doing         (same as for position)
   V   the same thing as in position)

Occupation                              -Specifications
     (Such as several jobs in several       (same as position
      plants.  Their details will not        but somewhat
      be identical)                          loosely drawn.)
                         Figure 1.
```

Furthermore, the basic data, known as job analysis, from which job
specifications are made is not a tool whose usefulness is limited to the
preparation of specifications. This basic data can be used for many other
purposes as shown in Figure 2.

Motion Study ——— Job Analysis ——— Vocational Guidance
Time Study ——— ——— Job Evaluation
Testing ——— ——— Safety Administration
Recruitment ——— ——— Merit Rating
Placement ——— ——— Selection
Personnel Research ——— ——— Training
Biomechanics ——— ——— Wage Control
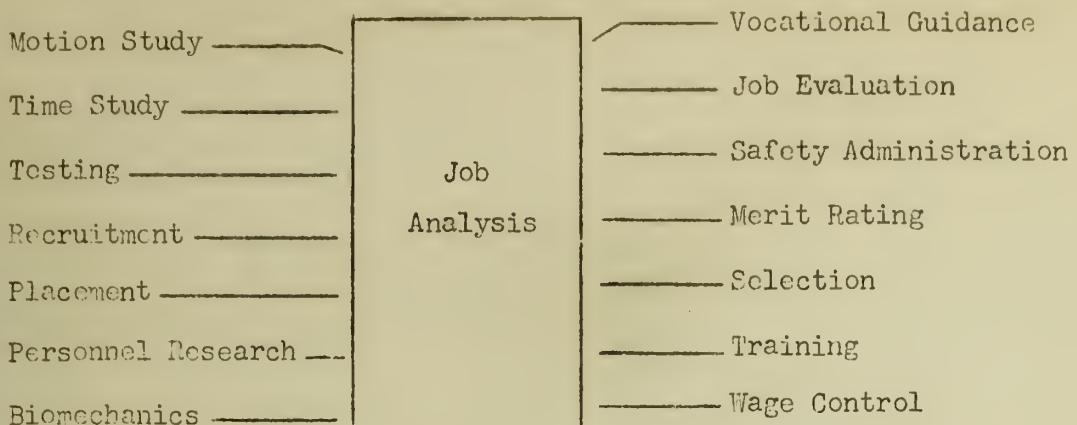
Figure 2.

Therefore, data collected for one purpose, say job specifications, is valuable and should be used in several other practices in the company. This is not only good economy but also good common sense to use the same basic data so that all personnel practices are in agreement with each other. So, even when talking about job specifications, one narrow aspect of the whole range of possibilities, one should not divorce the job specifications from the other personnel practices. And, if job specifications are not used, the whole chain of events of recruitment through maintaining an employee on the job is seriously weakened.

DEFINITION AND PREPARATION:

As used, job specification, is a brief description and analysis of the tasks of a job, prepared in such a way as to show clearly, the minimum qualifications a person should possess to perform the tasks of the job in a satisfactory manner. The desired qualities are usually listed under such headings as:

1. Identification of job
   a. Title of job (with alternate titles possible)
   b. Code number of job
   c. Related jobs (from which transfers can be made)
2. Duties description
   a. A brief description of the duties, or tasks, so as to give the personnel office an idea of the job.
3. Job payment
   a. Basic wage rate
   b. Incentive system (if any)
   c. Hours and overtime
4. Basic minimum requirements and desired qualifications
   a. What are the basic requirements which will just meet the minimum necessities for success on the job?
   b. What are the desired qualities to insure success on the job?
   c. What physical handicaps are and are not permissible?
   d. What qualities will prove to be handicaps for success on the job?
5. Suggested testing methods to determine applicants fitness for the job.

The particular form that the job specifications should take will depend upon the completeness of data desired. The main thought to keep in mind is to design a form with allied data properly grouped. And, within each group, the data arranged for ease of typing (with the minimum of stops on the typewriter) and ease of reading. Examples are given in Figures 3 and 4.

Figure 3

-3-

EMPLOYER'S NAME Aero Incorporated		OCCUPATIONAL TITLE Engine lathe operator I	CODE 4-78.011
ADDRESS Landing Road		EMPLOYER'S JOB TITLE—DEPARTMENT Engine lathe opr.-(first class)- Mach. Shop	CODE M5-6
TELEPHONE Ext 65659 - 20	PERSON TO SEE—HOW TO REACH Snow, I.C. - Bus 3	HOURS OF WORK 8:00 a.m. - 4:30 pm., 48 hr. wk.	
		UNION UAW - CIO Local 000	

INDUSTRY Aircraft Engine Parts Mfgr.	CODE 3422	RATE OF PAY $1.05 per hr., 1½ overtime	SEX M	AGE —

SUMMARY OF JOB

Finishes small airplane fittings ±0.001 on a Dobbs & Hobson, Model x, 15" bed, Engine Lathe

1. Sets up lathe, determining dimensions of parts to be machined from blue prints or by mathematics 15%-3

2. Machines brass or steel bar-stock, or aluminum or magnesium alloy castings, measuring work piece with scale, vernier calipers, or micrometer to determine suitable cut   70%-2

3. Grinds cutting tools according to knowledge of kind of metal & use of tool   5%

4. May cut threads to specification, shaping cutting tool with power grinder & checking with thread tool gage   5%

5. Assigns simple tasks to learner, instructing in work methods   5%

SKILLS, KNOWLEDGE, ABILITIES

Set up & operate engine lathe
Interpret bpts. & use shop math to make computations for intricately shaped parts.
Know properties of steel, aluminum, brass & magnesium alloys to judge cutting speeds & shape of cutting tools
Use vernier calipers, micrometers & thread tool gages.

EXPERIENCE

• 1yr Engine lathe operator II, 6-78.011

EDUCATION AND TRAINING

1 sem each H.S. trig. physics & chemistry
1yr. machine shop practice
course in blue print reading

DATE 11/17/49	PREPARED BY J.J. Joe	APPROVED BY I. Check

16-43963-1

USES-541 BUDGET BUREAU APPROVAL NO. 11-R221   JOB SPECIFICATION FORM   WAR MANPOWER COMMISSION
(2-45)   UNITED STATES EMPLOYMENT SERVICE
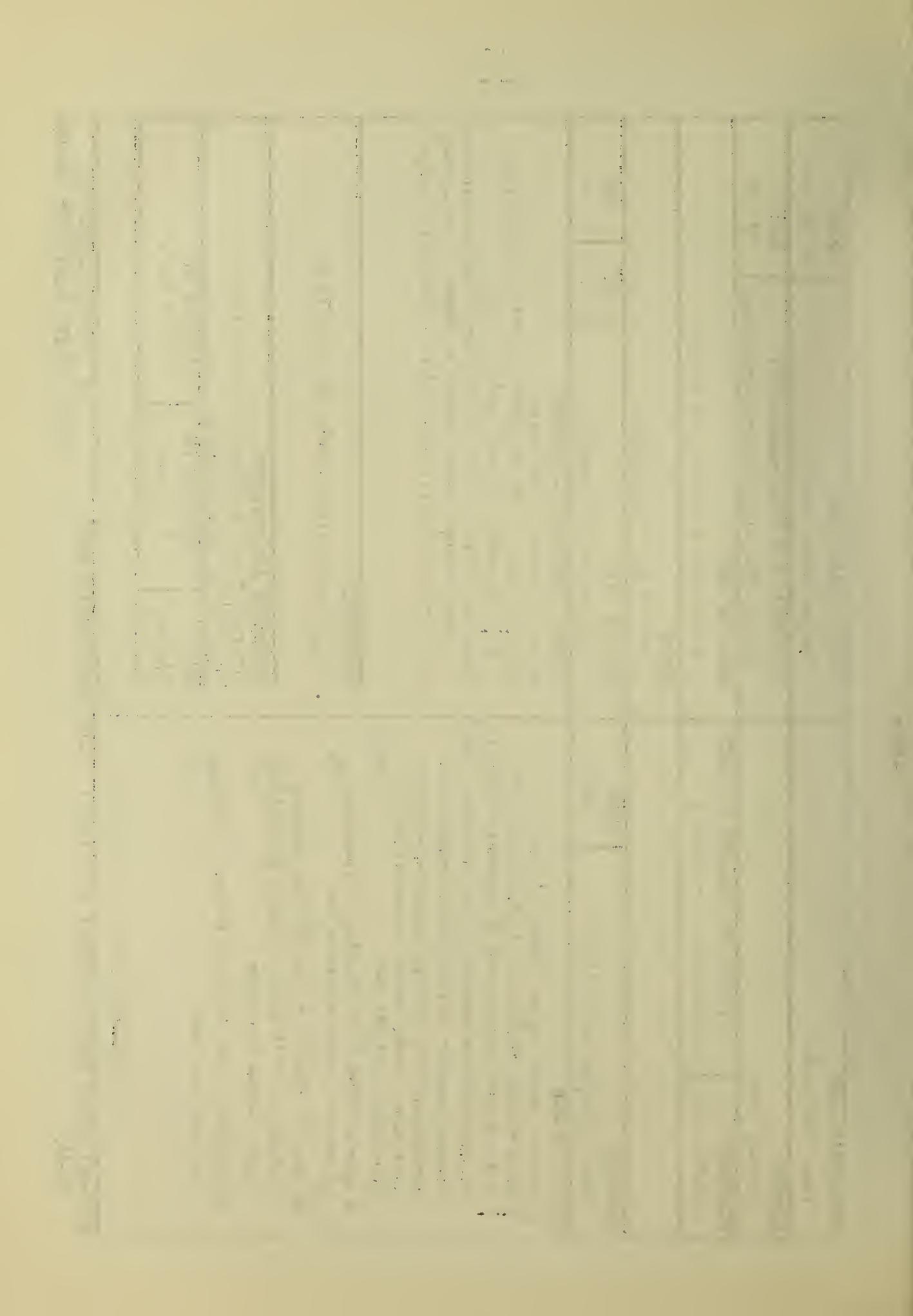
*Figure 3 cont'd

PHYSICAL ACTIVITIES		WORKING CONDITIONS		DETAILS OF PHYSICAL ACTIVITIES
✓ 1. Walking	___ 16. Throwing	✓ 51. Inside	✓ 66. Mech. hazard	Stands - 100%
___ 2. Jumping	___ 17. Pushing	___ 52. Outside	___ 67. Moving obj	Stoops, turns, reaches to operate machine – 80%
___ 3. Running	___ 18. Pulling	___ 53. Hot	___ 68.	Fingers & handles with either or both hands, lathe controls,
___ 4. Balancing	✓ 19. Handling	___ 54. Cold		hand tools etc – 30%
___ 5. Climbing	✓ 20. Fingering	___ 55. Sudden temp changes		Sees to read blueprints, use of measuring instruments –100%
___ 6. Crawling	✓ 21. Feeling	___ 56. Humid		Walks to get machine chuck occasionally – 10ft – 5%
✓ 7. Standing	✓ 22. Talking	___ 57. Dry		
✓ 8. Turning	✓ 23. Hearing	___ 58. Wet		
✓ 9. Stooping	✓ 24. Seeing	✓ 59. Dusty		DETAILS OF WORKING CONDITIONS AND HAZARDS
___ 10. Crouching	___ 25. Color vision	___ 60. Dirty		Inside –100%
___ 11. Kneeling	___ 26. Depth perception	___ 61. Odors		Noisy from machine operation – 100%
___ 12. Sitting	✓ 27. Working speed	✓ 62. Noisy		Dirty and greasy – 70%
✓ 13. Reaching	✓ 28. Two hands			Works with 2 or 3 learners – 15%
✓ 14. Lifting				
✓ 15. Carrying				

MISCELLANEOUS COMMENTS

Production efficiency in 12 mo.

REFERENCE MATERIALS

U.S. GOVERNMENT PRINTING OFFICE
16-43953-1

OTHER SOURCES OF WORKERS

4-78.012 Speed lathe opr
4-78.021 Turret lathe opr
4-78.022 Vertical lathe opr

TESTS

OTQ
Eng. lathe opr. I, 4-78.011 - V.1 p 136

Figure 3- Taken from: Handbook of Personnel Management - George D. Halsey, Harper & Brothers., 1947
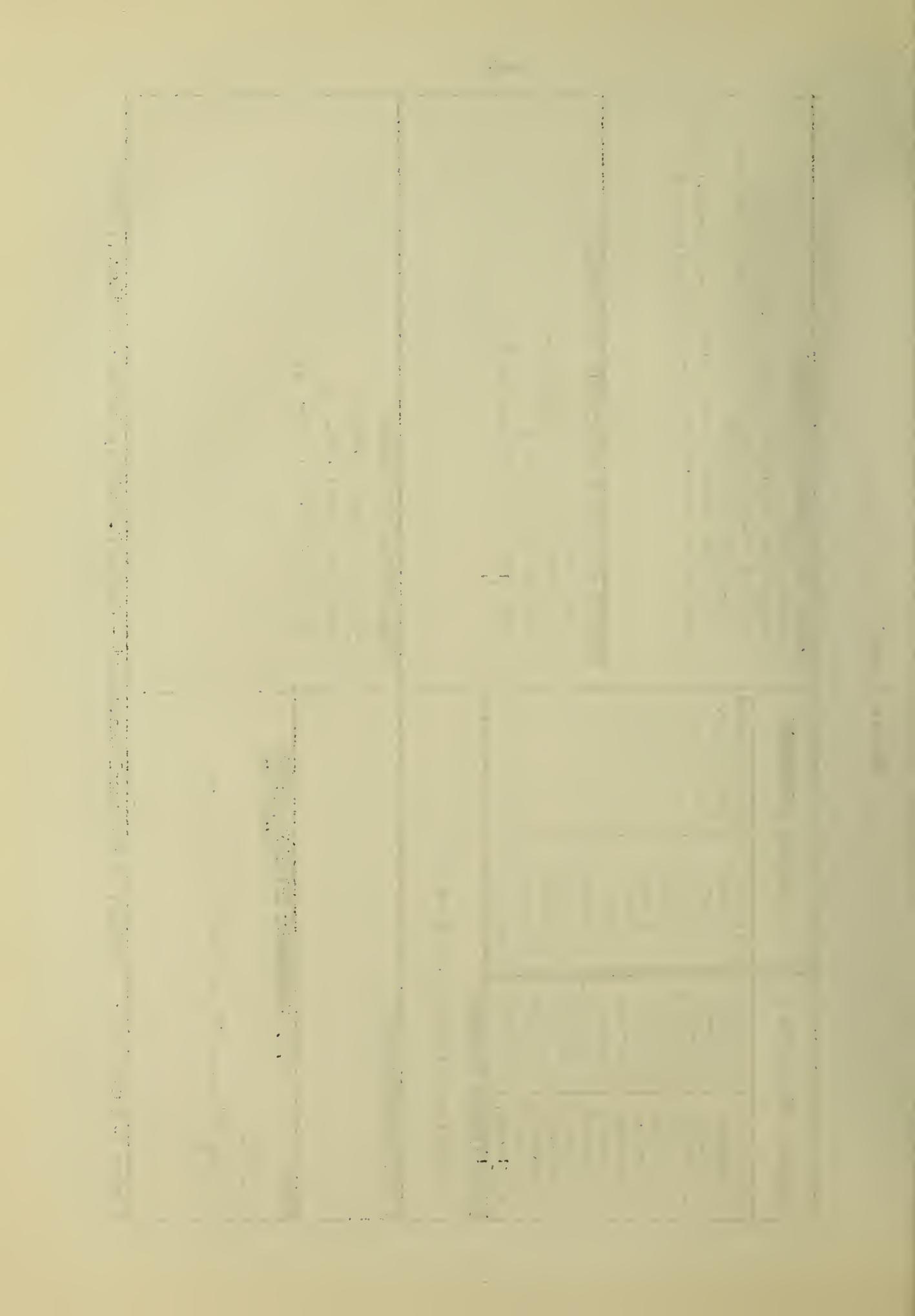
Figure 4

A TYPICAL JOB SPECIFICATION

Position No. & Title	14-2--Clerk-Stenographer
	85 Positions in the organization
Similar Positions	Secretary to Section Head
Positions Below and Above	Below: 14-1--Junior Clerk-Stenographer
	Above: 14-3--Senior Clerk-Stenographer

Description of Duties:

Under supervision does both clerical and stenographic work in which either the stenographic work is of more than ordinary difficulty, such as: taking dictation which includes technical or highly varied matter or reporting meetings and conferences;

<div align="center">or</div>

if the stenographic work is simpler in character, the clerical work is difficult and responsible in character and includes such tasks as assembling and briefing facts and information, preparing the more routine periodical statistical and accounting reports, indexing and classifying complicated material, giving out information on specialized subjects, composing correspondence involving a considerable variety of routine subject matter, or preparing legal forms and other papers without frequent instructions, or clerical work of approximately equal difficulty.

Hours: Regular office hours; overtime infrequent

Evaluation: Assigned to Salary Range VII

Minimum and Desired Qualifications:

Education: At least high school with business course. Prefer two-year college secretarial course.

Experience: At least one year of satisfactory stenographic and clerical experience. This may be waived if educational background and high test scores justify.

Skills: Typing at least 45 net words per minute; prefer 55. Shorthand, must pass 100 words per minute tests; prefer 120. Ability to use calculating machines desirable in some positions.

Suggested Tests:

Clerical Checking: Minimum 60; prefer over 70.

General Mental Ability: Minimum 40; desirable maximum depends on how much routine in individual position.

Arithmetic: Consider position to be filled. Minimum of 80 if there is much work with figures.

*Figure 4 Con't

English Usage: Consider position. Minimum of 80 if letters
or reports are to be composed.

Typing: Minimum of 45; prefer 55 or higher.

Shorthand: Minimum of 100; prefer 120.

Interview: If for secretarial position, check especially
emotional stability and tact.

Possible Use of   In some positions persons whose lower limbs are crippled can
Person with   serve satisfactorily. Check with employing executive.
Physical
Handicap

Sources Within   Junior Clerk Stenographers
the Organization   Also, check file to see qualifications of persons now doing
clerical work who have studied stenography.

Best Outside   Local School System
Sources for
Applicants

Other Recruiting   Copies of help-wanted advertisements should be pasted here,
Suggestions   with statement as to date, paper, and results. Also any
other suggestions.

A WORD OF CAUTION:

No one is in a position to say always do this and never do that when
preparing job specifications since the situation under which any set of job
specifications develop is, to some degree, unique unto itself. However, a few
thoughts may serve as guides:

1. The title should describe the job if at all possible.
2. Active verbs will greatly clarify the description of duties
   (or tasks). However, one should avoid general verbs such as
   "handles", "assists", "operates", etc. without going into
   what these actions imply.
3. Educational requirements should be rather specific such as
   stating that the job requires the use of fractions; reading;
   writing, etc. The years of schooling are elusive.
4. Experience requirements should be spelled out in terms of time
   and types. Reliance on traditional apprenticeship ideas should
   be avoided until thoroughly investigated and substantiated.
5. References to testing methods used in the selection (and place-
   ment) should be clearly indicated and be reliable and valid.
6. In some cases, it may be desirable to specify a maximum limit
   within which an applicant for a particular job must fall in
   order to avoid discontent through not utilizing his full
   capacities.

* Taken from: Handbook of Personnel Management - George D. Halsey, Harper
& Brothers, 1947.

UNIVERSITY OF ILLINOIS
Personnel Management Conferences, 1949
S e l e c t i o n T e c h n i q u e s
N o v e m b e r 1 7 - 1 8

THE USE OF THE APPLICATION BLANK

Paul F. Gorby, Manager Central Personnel Services
Marshall Field & Co., Chicago, Illinois

I. Introduction

A. What a dull topic around which to build an interesting afternoon!

B. Before getting into the subject matter I would like to take a
crack at answering the question raised in an earlier paper "Why a
Selection Program?"

1. I say we can't help ourselves - we can't keep from selecting.
2. We are selecting and sizing up people all of the time.
    a. When we enter a room we look around and pick out those
       we like and those we don't quite go for.
    b. When we get onto a street car we size up the person
       with whom we want to sit.
    c. When you enter a restaurant and decide where you will
       sit, if at a counter don't you give the waitress at
       least a quick appraising glance?
    d. Certainly a selection process goes on as to what friends
       we associate with.
    e. And the process works in some fashion as to whom we marry
       - perhaps we men shouldn't kid ourselves as to who does
       the selecting.
    f. We select our secretaries and this leads us to the se-
       lection of employees.

C. What part does the application blank play in this selection process?

D. First of all, I feel I must tell you how I regard the assessment
process.

II. What job do I assign the application blank as a player on a team?

A. Just to confuse you with another analogy, I would like to have
you think of what we could know about any individual if we were
omniscient as a three dimensional figure which looks like a fat
pie.

1. When we start out the entire pie is unknown and the job of
    assessment is to narrow the unknown to a minimum.
    a. What is the degree of unknown which can remain and still
       allow us to do a job is quite a question. How about you
       and your wife?
    b. Certainly, we can all agree we must learn significantly
       more than we now know.
    c. Of course, I have found you can learn a lot about a
       person and then not know what to do with the data.
       (1) Tell story of my trip to learn about a candi-
           date and when I began to evaluate all I had
           learned I realized that many of the weaknesses
           were of such a character that would not have
           qualified half of the vice presidents in busi-
           ness today.

(2) Tell story of my conversation on the subject of
the problem of children from broken homes as
candidates for scholarships. I discuss with our
first graduate and expressed my misgivings and
was shocked to find her from a broken home.
(3) Problems of threshold modify all of our evalu-
ations.
2. Let's insert a vector for each tool.
   a. Job Specifications
   b. Job Requisitions
   c. Selection of source for recruiting
   d. Pre-application blank
   e. Preliminary interview by receptionist
   f. Final application blank
   g. Secondary or final and hiring interview
   h. Tests
   i. Medical Examinations
   j. References
   k. Credit references
   l. Fingerprinting
   m. Induction period
3. But further refinement of this is necessary and that is to
   think of the third dimension as falling into four layers
   or levels. Each level is a different phase of our evalu-
   ation.
   a. Level one - is observational, and what you can learn
                  through your senses, such as to appearance,
                  pronunciations, body odors, etc.
   b. Level two - is factual and has to do with personal data,
                  such as place of birth, education, previous
                  jobs, marital and martial status, etc.
   c. Level three - is concerned with capacity and aptitude
                    and proficiency. This can be ascertained
                    chiefly by tests and medical examinations,
                    etc.
   d. Level four - is determined by deduction and estimation,
                   and is concerned with the deep springs of
                   human emotion and personality.

B. Each selection tool is concerned with either one or more of the
   four levels with varying degrees of penetration.

   1. One interviewer will be able to utilize a tool more effec-
      tively than the next.
   2. One job will require more careful assessment than the next.

C. The application blank is involved in varying degrees with all
   four levels.

I. One other approach to this problem I must suggest and that springs
   from my belief that the only reason for existence of any form is
   that it meets a management need.

   A. The need to select good employees I am sure has been established
      as a management need of first importance.

   B. A management need exists to convince the applicants your company
      is a desirable place to work in competition with others.
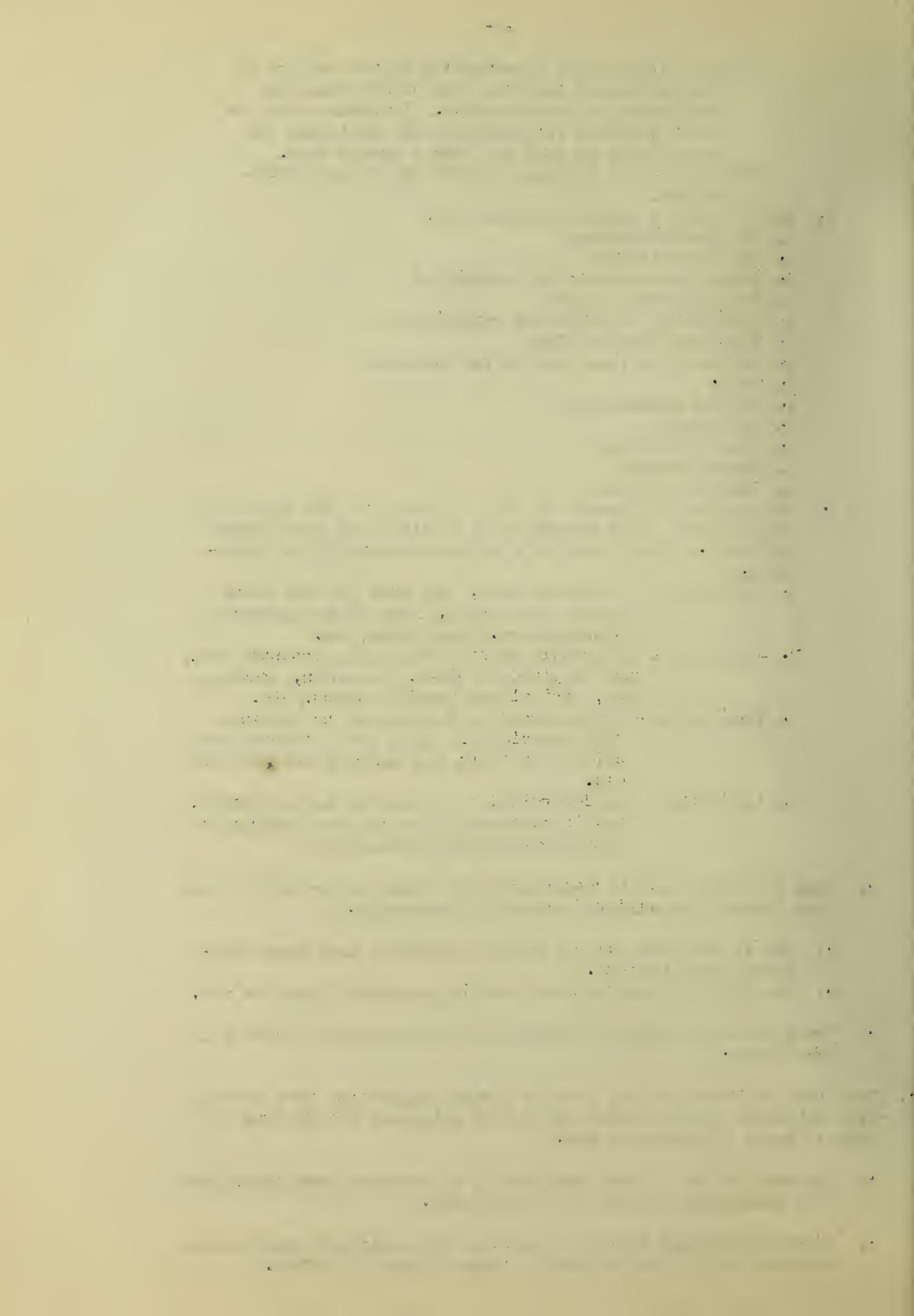
C. A need exists to obtain certain basic data required by law and payroll requirements.

D. A need exists to build up a basic record file on each employee - the why of this is fairly obvious but if some one wants to challenge it I would start off my reply by referring to problems of promotion, merit rating, layoff, occupational injuries, etc.

V. Now what I propose today is to take a few application forms and the items within those forms and measure them against a measuring check list embodying the two basic jobs the application form has to do; (1) meet management needs, (2) contribute to the assessment of an individual at the four levels. At the same time we must make the form simple, attractive and non-time consuming. Without these last conditions the form could be endless.

A. Let's look at the list of qualifying conditions.

How to judge an application blank
(See form attached)

1. Note the criteria are whether

    a. A management need is met such as whether on this form,

    (1) required legally by government or benefit plan
    (2) required as significant for company record purposes immediately as a part of the application form
    (3) management needs to inform the applicant or new employee on the form of certain information concerning the company
    (4) the company wants to persuade the applicant as to the desirability of signing up with the company.

    b. The material on this form rather than on other forms obtained later perhaps contribute to one of the four levels of assessment.
    (1) Does the item or material provide information which can be assessed by the interviewer's senses?
    (2) Does the item or material requested supply data which can later be used for assessment purposes?
    (3) Does the item serve as an actual measuring unit of an aptitude?

V. Now, the use of the form will vary with the type of use to which it will be put.

A. If you are hiring a college graduate or a technically trained person you will want much more.

    1. All of your selection tools will be more complex and sharpened.
    2. This tool will be just as improved.

B. If you are attempting to recruit and select beginners for
    routine jobs you will

    1. want your application to be as simple as possible
        with as few items as you can get by with;
    2. want to encourage the applicant to fill out the form
        by making the questions easy and attractive;
    3. expect to get your collateral information on sub-
        sequent forms and at later dates.

I. Conclusion

CODE
A = Highly essential for this form
B = Desirable for this form
C = Can be best obtained on some
    other form
U = Not essential to get
N = Must be obtained

CHECK LIST FOR EVALUATING
APPLICATION BLANKS

Factor	Management Need				Contribution to Assesment Process				
	Legal Data	Record File	Give information	Sales Material	Level I Observation	II Data	III Capacity	IV Personality	Matches Specifications
General									
1. Appearance of form									
2. Arrangement of items									
3. Persuasive material									
4. Instructions and Cautions									
5. Simplicity									
6. Writability									
Specific Items									
1. Name									
2. Address									
3. S.S. No.									
4. Sex									
5. Previous Address									

| Factor | Management Need | | | | Contribution to Assessment Process | | | | |
	Legal Data	Record File	Give information	Sales Material	Level I Observation	II Data	III Capacity	IV Personality	Matches Specifications
6. Employment desired									
7. Citizen?									
8. Salary desired									
9. Birth date									
10. Age									
11. Physical defect?									
12. Height									
13. Weight									
14. Marital Status									
15. Dependents									
16. Military connect's									
17. School record									
18. Detailed courses taken									
19. Extra Curricular Activit's									
20. Interests									

Contribution to Assessment Process

Management Needs

Factor	Legal Data	Record File	Give Information	Sales Material	Level I Observation	II Data	III Capacity	IV Personality	Matches Specifications
21. Whom to notify Relat'n?									
22. References Business									
a. Pay First Final									
b. Nature of work									
c. Reason for leaving									
23. Activity between jobs									
24. Personal Ref. (Not replies)									
a. Occupation									
b. Years known									
25. Military Service									
a. Branch									
b. Rank									
c. Activity									
d. Serial No.									
e. Dates									
f. Type of Discharge									
26. General Data									
a. Criminal									
b. Accident compen's									

Contribution to Assessment Process

| Factor | Management Need | | | | Level I Observation | II Data | III Capacity | IV Personality | Matches Specifications |
	Legal Data	Record File	Give Information	Sales Material					
c. Lost time for illness or accident									
d. Discharges?									
e. Credit stand'g?									
27. Relatives employed?									
28. General statement									
29. Certification									
Assessable Characteristics									
1. Neatness									
2. Following of Instructions									
3. Hand Writ'g characteristics									
4. Spelling									
5. Accuracy of Data									
6. Completeness									

I LIR No. 81 (49-50) /ec

SM-5-49

KOPPERS COMPANY, INC.

KOPPERS BUILDING
PITTSBURGH 19, PA.

KOPPERS

APPLICATION FOR EMPLOYMENT   DATE_____

	SOCIAL SECURITY ACCOUNT NO.

MALE ☐

FEMALE ☐

LAST	FIRST	MIDDLE

IT
SS   APT.   TELE.
      STREET AND NO.   CITY   P. O. ZONE No.   STATE   NO.____   NO.____

REVIOUS ADDRESS_____   DATE
                                                                      MOVED_____

YMENT DESIRED_____   ARE YOU A
                                                                      CITIZEN OF U. S._____

OR WAGE DESIRED:_____   BIRTH DATE_____   AGE_____

OU ANY PHYSICAL DEFECT OR DISABILITY: YES ☐   NO ☐   HEIGHT_____WEIGHT_____

L STATUS: SINGLE ☐   MARRIED ☐   WIDOWED ☐   DIVORCED ☐   SEPARATED ☐

NO. PERSONS   RELATION- WIFE OR   NO. CHIL-   AGES CHIL-   PAR-
RTED BY YOU___ SHIP: HUSBAND___   DREN___   DREN___   ENTS___   OTHER___

AT MILITARY OR
ORGANIZATIONS
J BELONG?_____

SCHOOL RECORD

KIND	NAME OF SCHOOL AND LOCATION	SCHOOL YRS. COMPLETED	YEAR GRADUATED	COURSE TAKEN	FROM MO.	FROM YR.	TO MO.	TO YR.	DEGREE
				X X X					X X X
IONAL OR :SS									
GE OR RSITY									
SPONDENCE L									
STUDIES OR ATE WORK									

CTS OF
LIZATION_____

TE NUMBER OF YEARS OF EACH SUBJECT TAKEN:

	ALGEBRA	GEOM.	TRIG.	OTHER MATH.	MECH. DWG.	PHYS.	CHEM.	BUSINESS ADMINISTRATION				
								ACCTG.	LAW	STENO.	STATIS.	MGMT.
SCHOOL												
IONAL SCHOOL												
GE												
RSITY												

IGH SCHOOL AND/OR COLLEGE ACTIVITIES, OUTSIDE REGULAR STUDIES, IN WHICH YOU PARTICIPATED. ALSO ANY HOBBIES OR OTHER
ESTS_____

TO NOTIFY
RGENCY: NAME_____   TEL. NO._____   RELATION_____

SS:_____

APPLICANT'S BUSINESS EXPERIENCE

GIVE THE NAMES OF THE COMPANIES FOR WHICH YOU HAVE WORKED

PRINT NAME OF
PRESENT OR
LAST EMPLOYER_____

ADDRESS_____
  STREET AND No.   CITY   P. O. ZONE No.   STATE

PRINT NAME OF   START-   LEAV-   FINAL   HOU
PERSON FOR   ING   ING   RATE OF   WEE
WHOM YOU WORKED_____DATE_____DATE_____PAY_____MON

OCCUPATION_____   REASON FOR
    LEAVING_____

NATURE OF
WORK DONE_____

PRINT NAME OF NEXT
PREVIOUS EMPLOYER_____

ADDRESS_____
  STREET AND No.   CITY   P. O. ZONE No.   STATE
PRINT NAME OF   START-   LEAV-   FINAL   HOU
PERSON FOR   ING   ING   RATE OF   WEE
WHOM YOU WORKED_____DATE_____DATE_____PAY_____MON

OCCUPATION_____   REASON FOR
    LEAVING_____

NATURE OF
WORK DONE_____

PRINT NAME OF NEXT
PREVIOUS EMPLOYER_____

ADDRESS_____
  STREET AND No.   CITY   P. O. ZONE No.   STATE

PRINT NAME OF   START-   LEAV-   FINAL   HOU
PERSON FOR   ING   ING   RATE OF   WEE
WHOM YOU WORKED_____DATE_____DATE_____PAY_____MON

OCCUPATION_____   REASON FOR
    LEAVING_____

NATURE OF
WORK DONE_____

PRINT NAME OF NEXT
PREVIOUS EMPLOYER_____

ADDRESS_____
  STREET AND No.   CITY   P. O. ZONE No.   STATE

PRINT NAME OF   START-   LEAV-   FINAL   HOU
PERSON FOR   ING   ING   RATE OF   WEE
WHOM YOU WORKED_____DATE_____DATE_____PAY_____MON

OCCUPATION_____   REASON FOR
    LEAVING_____

NATURE OF
WORK DONE_____

_____OCCUPATION_____ TEL.
NO._____

S_____YEARS KNOWN___ __

_____OCCUPATION_____ TEL.
NO._____

S_____YEARS KNOWN_____

_____OCCUPATION_____ TEL.
NO._____

S_____YEARS KNOWN_____

MILITARY SERVICE IN U. S. ARMED FORCES

H OF SERVICE_____RANK OR RATING_____SERIAL NO._____

E OCCUPATIONAL ACTIVITY_____

NTERED SERVICE_____DATE DISCHARGED_____TYPE OF DISCHARGE_____

GENERAL INFORMATION

OU EVER BEEN CONVICTED?_____EXPLAIN:_____

_____

OU EVER RECEIVED ACCIDENT COMPENSATION?_____EXPLAIN:_____

_____

OU LOST TIME AS A RESULT OF
NT OR ILLNESS IN PAST FIVE YEARS?_____EXPLAIN:_____

_____

OU EVER BEEN DISMISSED OR FORCED TO RESIGN FROM ANY EMPLOYMENT?_____EXPLAIN:_____

_____

OU ANY JUDGMENTS OUTSTANDING AGAINST YOU?_____EXPLAIN:_____

_____

OU EVER WORKED FOR KOPPERS CO., INC.?_____

_____DIV._____LOCATION_____

LE_____DATES_____

OU ANY RELATIVE EMPLOYED BY KOPPERS CO., INC.?_____STATE NAME, RELATIONSHIP AND LOCATION_____

_____

_____

(INCLUDE LICENSES YOU HOLD, E. G., FIREMAN, ENGINEER, ETC. CLERICAL APPLICANTS SHOULD STATE ABILITY TO OPERATE SPECIFIC

MACHINES.)

I CERTIFY THAT THE FOREGOING STATEMENTS ARE TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND AUT
THE KOPPERS CO., INC., TO INVESTIGATE ALL STATEMENTS MADE IN THIS APPLICATION. I UNDERSTAND THAT A PHYSICAL EXAMINATIO
BE A CONDITION OF EMPLOYMENT.

SIGNATURE

INTERVIEWER'S COMMENTS

INTERVIEWED BY_____(P) A B C D   (E) A B C D   (A) A B C D_____

ADDITIONAL INTERVIEWS_____REFERRED BY_____

REMARKS: (TO INCLUDE RESULTS OF TESTS GIVEN)_____

UNIVERSITY OF ILLINOIS
Personnel Management Conferences, 1949
S e l e c t i o n   T e c h n i q u e s
N o v e m b e r   1 7 - 1 8

SAMPLE TEST ITEMS

UNIVERSITY OF ILLINOIS
Personnel Management Conferences, 1949
S e l e c t i o n   T e c h n i q u e s
N o v e m b e r   1 7 - 1 8

GENERAL INTELLIGENCE TEST ITEMS

Put the number
of the right
answer here.

Begin Here.

1. Which is wrongly spelled?
   1 evening, 2 histry, 3 speak, 4 fair, 5 subject....................(   )
2. Which word is wrongly spelled?
   1 eight, 2 restrain, 3 afrade, 4 uncle, 5 fourth..................(   )
3. Which word is wrongly spelled?
   1 accept, 2 capture, 3 inspect, 4 bridge, 5 doller................(   )
4. Which word is wrongly spelled?
   1 gentleman, 2 primary, 3 property, 4 terrable, 5 final...........(   )
5. Which word is wrongly spelled?
   1 beautiful, 2 repare, 3 trouble, 4 flight, 5 importance..........(   )
6. Which is wrong?
   1 She lost the book. 2 He wrote a letter. 3 You hadn't ought to do it.(   )
7. How many complete sentences are there in the following?
   Let Harry carry the apples I will carry the milk you may carry the
   bread..(   )
8. Which is wrong?
   1 He couldn't hardly do it. 2 No one is here but me. 3 Many people
   like meat..(   )
9. Which is wrong?
   1 I wish I were there. 2 I don't want no more to eat. 3 Both of us
   are going..(   )
10. Which word is wrongly spelled?
    1 century, 2 assist, 3 perticular, 4 total, 5 difference..............(   )
11. Which word is wrongly spelled?
    1 machine, 2 success, 3 avenue, 4 entertain, 5 visiter.............(   )
12. Which is wrong?
    1 I don't know whom you mean. 2 He gave some of the fish to Harold and
    I. 3 Who will go if you don't?...................................(   )
13. Which is wrong?
    1 He sat in a chair. 2 His arm was broke. 3 How do you know? 4 We
    all came home..(   )
14. Which is wrong?
    1 I will go too. 2 We lost our way. 3 Let me do it for you. 4 He did
    very good..(   )
15. Which is wrong?
    1 We are both older than he. 2 I have got a bad cold. 3 We all went
    home together..(   )
16. A man had a certain sum in the bank last year. He has a certain larger
    sum this year. To find how much he has saved during the year you
    should (?)
    1 add, 2 subtract, 3 multiply, 4 divide..........................(   )
17. A bus makes a certain number of trips a day over the same road. Each
    trip is a certain number of miles. To find the total number of miles
    traveled per day you should (?)
    1 add, 2 subtract, 3 multiply, 4 divide..........................(   )
18. If 2½ yards of cloth cost 20 cents, how many cents will 10 yards cost?..(   )
19. A portion of land almost surrounded by water is called (?)
    1 a bay, 2 an island, 3 a lake, 4 a cape, 5 a peninsula..........(   )
20. An uncle is to an aunt as a son is to a (?)
    1 brother, 2 daughter, 3 sister, 4 father, 5 girl................(   )
21. If I have a large box with 3 small boxes in it and 4 very small boxes
    in each of the small boxes, how many boxes are there in all?............(   )
22. One number is wrong in the following series. What should that number be?

    1 2 4 5 7 8 10 11 12 14...(   )
(If you finish before the time is up, go back and make sure that every answer is right.)

GENERAL CLERICAL APTITIDE TEST ITEMS

TEST II. CLASSIFICATION. 2 MINUTES

A man kept his accounts under six headings. On this page there is a column for each of the headings, with the name written above it. Work down the list of things which the man bought, and put a check in one of the columns to show under which heading each item should be classed. The first two items are done for you as examples. Be careful to put the check exactly on the right line.

	Food	Traveling Expenses	Clothing	Amusements	Heating and Lighting	Sundry other Expenses
Postage Stamps						X
Baker (1 week)	X					
Veal Cutlets						
Baseball Ticket						
1 lb. Biscuits						
Matches						
New Hat						
Income Tax						
Theatre Tickets						
3 Electric Bulbs						

TEST V. CHECKING. 2½ MINUTES.

The items in Column A have been copied out in Column B, but some mistakes have been made in copying. Compare the two columns and put an X in Column C against any item which has not been copied out correctly; the first two mistakes are marked. Work as quickly and accurately as you can and note that mistakes have been made in the names and titles as well as in the figures.

Column A		Column B		Column C
Mr. Tom Roberts	$1225	Mr. Tom Roberts	$1225	_____
Mrs. B. S. Van Bon	43182.50	Mrs. B. S. Van Ben	43182.50	___X___
Mr. Harvey	67	Mrs. Harvey	67	___X___
Miss Kitty Davis	330.25	Miss Kitty Davies	330.25	_____
Mr. Harold Dixon	127197	Mr. Harold Dixon	127197	_____
Mr. Urquhart	26	Mr. Urquhart	26	_____
Mrs. Valentine	59190.50	Mrs. Valentine	5992	_____
Miss Angelina McNab	868	Miss Angela McNab	868	_____
Mrs. T. Treherne	122883.75	Mrs. T. Treherne	122883.25	_____
Mrs. Belinda	72	Mrs. Belinda	72	_____
Mrs. S. Higson	100	Mr. S. Higson	100	_____
Mr. Stephen Mart	344174	Mr. Stephan Mart	344174	_____
Miss Brown	1193	Miss Brown	1193	_____
Mr. Deleuse	109.50	Mr. Deleuse	109.50	_____

REASONING

NUMBER FACILITY

| 0 ⎝ | 1 • | 2 •• | 3 ••• | 4 •••• | 5 — | 6 •⁄— | 7 ••⁄— | 8 •••⁄— | 9 ••••⁄— |
| 10 = | 11 •⁄= | 12 ••⁄= | 13 •••⁄= | 14 ••••⁄= | 15 ≡ | 16 •⁄≡ | 17 ••⁄≡ | 18 •••⁄≡ | 19 ••••⁄≡ |

NUMBER CODE is based on numerical system of the ancient Maya. To prepare for test, study Maya numbers 0 to 19 (above). Numbers 20 and over, expressed by combining symbols one above another, are deciphered by multiplying the bottom symbol by one, top symbol by 20, and adding (below, right).

EXAMPLE 1   EXAMPLE 2

EXAMPLE 1	EXAMPLE 2
$\cdots \times 1 = 7$	$\cdot\!\!-\, \times\, 20 = 120$ $\cdots\, \times\, 1 = \underline{7}$ $\overline{127}$

ABILITY TO CALCULATE, tested by this exercise, is one of the most specific of the primary mental functions. It is essential to clerks, cashiers and accountants, valuable in many other professions. To take the test, which should require five minutes, write equivalents of Maya numbers in boxes at right.

••• ⁄—			•• ⁄••••⁄=		
•• ⁄•			•• ⁄⎝		
••• ⁄=			• ⁄••••⁄≡		
•••• ⁄••			•• ⁄••••		
•• ⁄≡			•••⁄•⁄⎝		
=⁄••⁄=			•• ⁄••••⁄•		
••••⁄•⁄≡			•• ⁄••••		
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UNRELATED OBJECT in each line is out of keeping with the rest. In the top line, for example, all but fedora are party hats. This is a test of reasoning power, which is important in intellectual occupations. Time: three minutes.

NON-VERBAL INTELLIGENCE TEST ITEMS
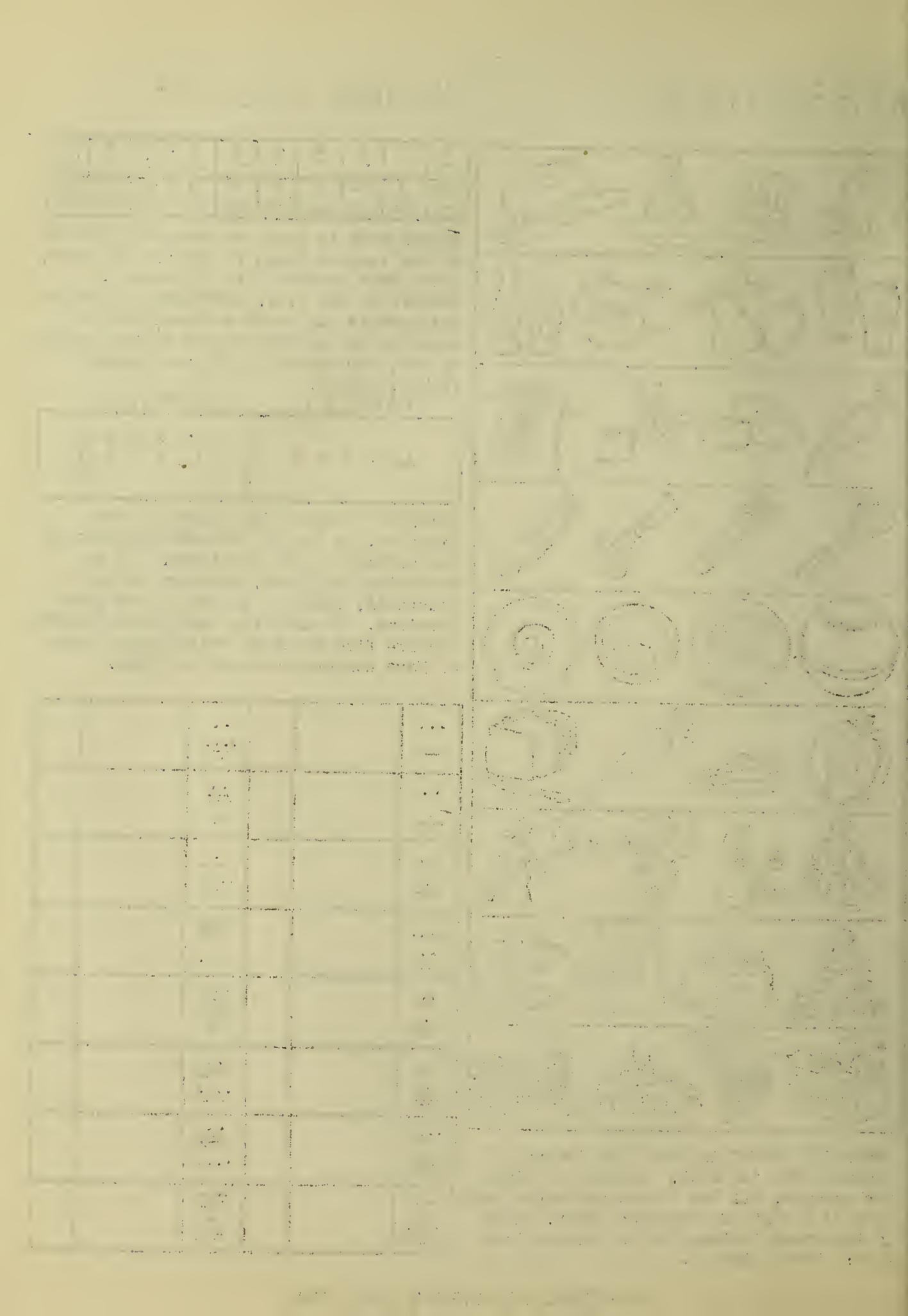
PERSONALITY AND INTEREST TEST ITEMS

PART A

1. Do you feel that many young people get ahead today because they have "pull"?...Yes ? No 1
2. Are most people thoughtless of the rights of others?................Yes ? No 2
3. Are you continually comparing yourself with other people?..........Yes ? No 3
4. Do a lot of people you have known tend to form "cliques" or closed groups?...Yes ? No 4
5. Generally speaking, do you believe that the boy who has not learned to defend himself deserves to "take a beating"?....................Yes ? No 5
6. Do you find that generally if you want a thing done right you must do it yourself?...Yes ? No 6
7. Can a person get ahead by his own efforts if he does not look out for himself at every turn?.......................................Yes ? No 7
8. Do you consider yourself a rather nervous person?..................Yes ? No 8
9. Do you think your generation has as many opportunities for success as your parents' generation had?...............................Yes ? No 9
10. Do other people pay more attention to your comings and goings than they should?...Yes ? No 10
11. When things become dull do you feel the urge to stir up some excitement?..Yes ? No 11
12. Do you think the educational system in this country is seriously wrong in many respects?...Yes ? No 12

PART B

On this page there are three short groups of personal characteristics. Each group contains descriptions of six of these characteristics. Read through the first list and then rate yourself as follows: Place a "1" on the line in front of the description which you think fits you best; "2" in front of the description next most characteristic of you; "3" in front of the third best; and so on down to "6" for the description that least fits you.

Be sure to read all six items before writing in any numbers. Each number from 1 to 6 is to be used once, and only once.

_____ Industrious, energetic, persevering. This means you work steadily and earnestly; finish your work in spite of difficulties or discouragement.

_____ Sociable, cordial, cheerful. This means you like to be with people; enjoy parties or gatherings; have many acquaintances.

_____ Analytical, critical, intellectual. This means you are inclined to study and observe; are quick to notice weaknesses and faults; like to get at the how and why of things.

_____ Ambitious, eager to get ahead. This means you have a strong desire to get somewhere, to gain wealth or recognition, to surpass others.

_____ Tactful, diplomatic. This means you say and do the right thing; do not rub people the wrong way; are able to deal with others without giving offense.

_____ Enthusiastic, eager, spirited. This means that you have strong feelings and that you are much interested both in people and in things that are happening.

PART C

Each of the following questions is followed by four possible answers. Decide which answer you like better than any of the others and place a number "1" in front of it. Place a "2" in front of the answer you like next best; then a "3"; and finally a "4" for the answer which appeals to you least.

Only the four answers given here are to be used, even though other better answers may occur to you. If your preference is not clear, make the best guess you can. There are no right or wrong answers; you are merely to express your own choice. Be sure to number all four answers.

1. In the course of a week, which of the following things gives you the greatest satisfaction?
   _____ a. Being told that you have done good work.
   _____ b. Helping people who are in trouble; doing things for others.
   _____ c. Being with your family and close friends.
   _____ d. Having free time to use as you please.

2. Which of the following organizations would you prefer to belong to?
   _____ a. A political group setting out to gain control in your community.
   _____ b. An organization to protect its members against financial loss.
   _____ c. A well-known club of leading people in the community.
   _____ d. A little-known club where members informally "loaf" and enjoy themselves.

THE SELECTION OF EXECUTIVES

Carroll L. Shartle
The Ohio State University

In developing selection methods, one finds increasing complexity as he comes up the organization chart. The worker on the assembly line while technically involved in a very complex operation performs tasks which are quite different than those of persons whom we think of as executives. Executives are involved in a complexity of human relations, as well as dealing with technical subjects in which they must have competent background.

The problem of selection of executives is so complicated that it involves not merely "testing" or "measurement" techniques but likewise the application of research methods from several related sciences. I refer chiefly to industrial engineering, economics, psychology, anthropology, and sociology.

Claims to having solved the problem of executive selection are sometimes made by persons who talk or write with a great deal of assurance, yet in judging these claims one usually fails to find the factual evidence to support the claims. In fact I would be willing to wager that there is an inverse ratio between claims made and the amount of scientific research available to support these claims.

In developing scientific selection methods, we generally standardize them on a sample of workers. We then do a check study on several samples and then a follow up study to see if the techniques really work. In such studies we know for what we are selecting. In executive performance, I doubt if we do know in most instances even what an executive is.

Who is an executive anyway? Designation of executives vary among organizations. Is a Treasurer, for example, included even though he may have no staff? Is the legal counsel an executive? What about the general manager who spends most of his time making speeches or attending committee meetings in Washington and delegates the operations activities to an assistant general manager? Is the president of a corporation who holds his position because he owns a large block of stock and who seldom appears at his office an, executive? What about an office manager who has a large clerical staff? How about the Secretary of the Board, or the board members themselves?

I must admit that I am confused by the apparently careless use of the term.

Executives may be designated on terms of one or more fairly simple criteria such as:

1. All officers of the organization are executives.
2. All individuals in the organization holding positions above a specified level in the organization chart are executives (such as all department heads and above).

3. All persons who have under their supervision more than a
   specified number of employees are executives.
4. All persons who receive a salary above a specified amount
   are executives.
5. All who attend the general manager's staff meeting are
   executives.

I believe that in attempting to take a scientific approach to executive
selection we must go much farther than the above designations in determining
what an executive is. In fact, I would venture the thesis that (1) the
definition of an executive must be in terms of several criteria and (2) when
one designates a class of positions which he terms executive, there must be
subclassifications. A general grouping will combine too many unlike activities.

I would therefore propose that an early step, perhaps the first, in the
development of selection methods should be a careful analysis of all positions
which appear to come within the scope of executive performance. I would begin
the analysis at the top of the organization and work down. Since it may be
assumed that executive positions are characteristically more numerous at the
top levels, one can continue his analysis downward until he reaches levels
where it appears that the positions no longer meet the criteria he has
developed.

The analysis of executive jobs for selection involves the application of
methods which receive less emphasis in other types of analysis. In my
experience in analyzing executive positions, I find that a high proportion
of the activities performed have four characteristics.

1. They are primarily symbolic.
2. They are highly involved in interpersonal relationships.
3. They involve organization, formal and informal, which must
   be studied to get a true picture of executive performance.
4. They are related to the determination of organizational goals
   and means of goal attainment.

Job Analysis

Let us take a look at how we may approach the problem of finding out what
executives do and what is satisfactory executive performance.

By observation, by interviews, by questionnaire, data on the activities of
these executives can be prepared in both narrative terms and in quantitative
terms. An attempt has been made to classify the executive activities. Thus
far, from studies in both industry and government the activities can be
classified under the following 14 headings:

1. <u>Inspection of the Organization</u>-Direct observation and personal inspection
   of installations, buildings, equipment, facilities, operations, services
   or personnel--for the purpose of determining conditions and keeping
   informed.

2. <u>Investigation and Research</u>-Acts involving the accumulation and pre-
   paration of information and data. (Usually prepared and presented
   in the form of written reports).

3. Planning-Preparing for and making decisions which will affect the aims of the organization as to volume or quality of business or service. (Including thinking, reflection and reading, as well as consultations and conferences with persons relative to short term and long range plans).

4. Preparation of Procedures and Methods-Acts involving the mapping of procedures and methods for putting new plans into effect, as well as devising now methods for the performance of operations under existing plans.

5. Coordination-Acts and decisions designed to integrate and coordinate the activities of units within the organization or of persons within units, so as to achieve the maximal over-all efficiency, economy and control of operations.

6. Evaluation-Acts involving the consideration and evaluation of reports, correspondence, data, plans, decisions or performances in relation to the aims, policies and standards of the organization.

7. Interpretation of Plans and Procedures-Acts involving the interpretation and clarification for assistants and other staff personnel of directives, regulations, practices, and procedures.

8. Supervision of Technical Operations-Acts involving the direct supervision of personnel in the performance of duties.

9. Personnel Activities-Acts involving the sections, training, evaluation, motivation or disciplining of individuals, as well as acts designed to affect the morale, motivation, loyalty or harmonious cooperation of personnel.

10. Public Relations-Acts designed to inform outside persons regarding the program and functions of the organization, to obtain information regarding public sentiment, or to create a favorable attitude toward the organization.

11. Professional Consultation-Giving professional advice and specialized assistance on problems of a specific or technical nature to persons within or outside the organization. (Other than technical supervision and guidance of own staff personnel.)

12. Negotiations-Purchasing, selling, negotiating contracts or agreements, settling claims, etc.

13. Scheduling, Routing and Dispatching-Initiating action and determining the time, place, and sequence of operations.

14. Technical and Professional Operations-The performance of duties specific to a specialized profession (e.g. practice of medicine, conducting religious services, classroom teaching, auditing records, operating machines or equipment).

An estimate is noted of the proportion of time spent on each activity, and a profile or pattern is prepared. No two patterns are alike. One executive spends more time on public relations than any other activity. Another may spend the greatest proportion of his time on evaluation. A third may spend the greater proportion of his time in professional consultation, being technically competent in his own field such as law, accounting, or research.

The fact that executive performance differs even in positions of the same title and duties brings up the matter of studying executives. Here are two presidents of corporations. The corporations are quite similar and the duties of the executives are quite similar. However, President A has a pattern vastly different from that of President B. They are both executives with similar duties and different activities. If one wishes to study such executives from the standpoint of their aptitudes, abilities, interests and other characteristics, can he place them in the same criterion group? I am inclined to say no. I think that studies of executives involving tests have been misleading because all the executives were placed in the same sample and criterion groups have not been specified.

Thus one can see that job analysis here gets into the methods of sociology and social psychology as well as those which have come up through the developments of industrial engineering and industrial psychology.

In certain long range research studies with which I happen to be working, we have studied the performance of persons in high organization status in a dozen different organization structures in business, and the armed services. While we find that these executives hold jobs or assignments, it may also be said that they have roles in social organization. Each one of the organizations has goals or objectives specified or implied.

Evaluation of Executive Performance

If one knows the activities or performances of executives in various classifications, he must in addition determine what kinds of performances are better than others in this organization. Who are the executives who possess those performance qualifications?

There seem to be at least two kinds of criteria that must be considered in evaluating executive performance. The first kind of criteria is represented by the activities of the organization for which the executive is responsible.

It is not easy to appraise the success of an organization unit, a department or division and then attempt to estimate the role played by the particular executive. In studying this problem, we have developed a term called goal-achievement index. It is the ratio of the estimate of actual accomplishment to what was supposed to be accomplished. It can be expressed in qualitative and quantitiative terms by ratings of superiors or by the analysis of records such as financial, production, sales, accidents, and the like. It is a long story and we can not go into details here.

Whatever technique is applied, one criterion or one group of criteria should well include how an organization headed by this executive is achieving its objective.

The second classification of criteria appear to be more in terms of the executive's individual behavior and how he is regarded by his co-workers. There are a number of factors that can be explored here, and they must be evaluated in relation to the factors concerning the performance of the group he heads. Sometimes these may be in conflict. The unit headed by an executive may be accomplishing satisfactorily its objectives as set up by the board of directors. But an analysis will show that the executive himself is rated low as one who gets along with his subordinates, in fact his fellow workers may dislike him immensely. On the other hand, an executive may be rated top as a supervisor and leader by his associates and subordinates but the organization he heads may be slipping badly.

Time Factor

In the evaluation of executive performance, one is faced with the time factor. Over how long a period do you judge performance? One year, five years, ten years? Today an executive may be rated high on the majority of criteria applied. Perhaps you would regard him as an example of the kind of performance you wish to select future executives to match. But perhaps six months hence or a year hence the picture may have changed markedly. He no longer meets your standards. How now do you rate his performance? I think most of us would like to use criteria of performance which cover as long a period as possible. This can be aided by a historical approach to the organization and comparing evaluation from data which are available from past years.

Policy Factors

The various criteria used in evaluation of executive performance must be weighed according to importance. The relative importance is often a high policy matter. You may find some hints in the articles of incorporation, the by-laws or board decisions. If for example, it is the policy of the organization to expand rapidly, it quite naturally should be reflected in executive performance and evaluation and in subsequent selection. On the other hand, if there is a very conservative policy in regard to expansion with great emphasis on improving what we now have, it should likewise affect the criteria.

Selective Devices

Thus far we have mentioned several steps involved in the development of selection methods for executives. They include:

1. Definition of what are executive positions.
2. A careful analysis of the work done, the duties, and inter-personal relationships of those now performing those tasks.
3. The classification of executive positions, according to the kind of performance involved in them.
4. The criteria for evaluating success performance and the determination of the kinds of performances for which you wish to select.

Now we come to the techniques which will find them. I believe that some of the predictions which bear out the promise of validity in the future are:

1. Physiological data (especially those relating (1) to physical vigor and endurance and (2) to sensory threshold, sensitivity, irritability, alertness and reactivity). Hints from comprehensive survey of the literature.
2. Data regarding work performance. (Especially those relating to responsibility patterns, work patterns, and work methods, as well as past work history).
3. Measures of formal informal group structure (Moreno, Ohio State Leadership Studies).
4. Measures of observed behavior in groups (O.S.S., Lewin, Launor Carter, John Hemphill).
5. Sociological and economic data concerning status (especially those which determine group identifications, mobility, ideals and prejudices). Suggested by such studies as those of Lloyd Warner and Dollard.
6. Measures of Personality Structure (especially as related to concepts of self integrity, social perception, expansiveness and social imagination). Most promising methods: projective tests and Army Forced Choice Technique.
7. Measures of interest and personal goals (Interest tests and level of aspiration experiments).
8. Measures of intelligence (especially comprehension and perceptual organization). Thurstone's studies.
9. Measures of technical knowledge (especially administrative knowledge). Dorothy Adkins.

The steps which I have outlined are lengthy and difficult. But what personnel in an organization deserve greater attention?

UNIVERSITY OF ILLINOIS
Personnel Management Conferences, 1949
S e l e c t i o n   T e c h n i q u e s
N o v e m b e r   1 7 - 1 8

TESTS IN SELECTION

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INTRODUCTION

I am sure that all of you have some familiarity with the testing of applicants for employment. Some of you no doubt are now using tests as a part of your employment procedure. If you were in the military services or have been in the market yourself for a job change during the last few years, the chances are that you have had a personal experience in taking employment tests. Yesterday afternoon you had an opportunity to become acquainted with a number of the employment tests widely used at the present time.

The growth of the use of tests in business and industry is fairly impressive and surveys reported by the National Industrial Conference Board and others show that the use of tests has literally multiplied in the last decade, particularly among the larger and more progressive companies. It is safe to say that testing is here to stay. It is a technique in selection which is well beyond the experimental stage, and which has met the demands of practical application in a wide variety of situations. Name any industry and you will find in it some company that has made successful use of selection tests.

The fact remains, however, that the present use of tests is predominantly in the larger organizations. There are reasons for this and it is entirely necessary and proper that the larger companies should do much of the pioneering work in this type of management technique. Testing has often been passed by or discarded by the smaller organizations because of the belief that only a big operator can afford testing and can get the most out of it.

TESTING IN SMALLER ORGANIZATIONS

It has been my fortune during the last few years to discuss selection tests with a number of organizations, some small and others large. These discussions have tended to follow a pattern which is now becoming familiar. Some of the basic assumptions in testing appear now to be taken for granted and are no longer questioned seriously. For example, few people question the importance of improved selection in their organization. It is now accepted as a matter which merits time, attention and money as a practical factor in the operation of a successful company. Also, the idea of individual differences in aptitudes, abilities, interests and motives is an accepted idea, although few people other than those with specialized training have any real conception of the magnitude of the differences we find among a group of applicants for a job. Furthermore, the idea of measuring capacities of people, in a way somewhat comparable to the measurement of the capacities of machines, has finally gained acceptance.

These basic questions are no longer foremost in the minds of those who are considering the possibility of using selection tests. Instead the questions are directed to the practical problems of doing something about it.

I am going to assume that you have seen enough of tests to know in general what they are like and to know the various types of tests that are currently in use. Further, I am going to assume that you accept the idea of testing as an aid in selection. I am going to direct our discussion towards the practical questions of what can be done about it in a smaller organization.

CONDITIONS FOR A SUCCESSFUL
TESTING PROGRAM

I am not one to say that employment tests are appropriate in all situations. In fact, I spend a good part of my time explaining to over-enthusiastic converts why they should not use tests, or why they should limit the scope of their use of tests. Certain conditions are necessary if the program is to be successful. The most important of these are determined when you decide the occupations for which you are going to use selection tests and when you decide which tests you are going to use.

There is no point in undertaking the use of selection tests unless you have a real problem to be relieved by doing so. The employment market and the employment practices of your company must be such that testing will fit properly into the normal employment procedures once you have your program set up. For example, it would be foolish for a company to go through a costly procedure to set up a testing program for field salesmen if the test battery finally produced was not suitable for use by the field managers at distant locations who actually do the hiring. Similarly it is useless to set up a testing program for an occupation on which your turnover and performance record is already highly satisfactory. A third consideration is this, that certain occupations present very complex testing problems and it probably would be unwise to try it unless the conditions are right. Most companies, however, have fallen heir to the common ills in that they have fairly large groups of people on jobs that are suitable for testing, and also have had unhappy experiences with employees whose performance and stability on the job leave something to be desired.

CHOICE OF TESTS

The major hurdle to surmount in beginning a successful selection testing program is the choice of tests to use in each situation. In this respect you can get little guidance from the titles of the tests or the assertions of those who may be promoting the use of some particular test. On the other hand, it is a good idea to know with certainty beforehand that the tests you have chosen will do a job for you.

Generally speaking, there are two ways to make this determination. The traditional way involves a pre-trial of the tests in your own organization and with your own people, the object being to see whether the tests you are trying actually differentiate between the better and poorer employees whose records are known to you. The alternative way is to depend upon the judgment of some individual who has had wide experience in the use of employment tests and the appraisal of their suitability for the various jobs.

If your program is broad enough to support the cost of the pre-trial methods, this, without question, is the best way. The method is quite simple in its outline although the details may be complex. The procedure is to select from the present employee group on the particular jobs in which you are interested some employees who are known to be outstandingly good and some who are outstandingly poor in performance, and to give to these people the battery of tests which you hope will prove to be of value. A statistical comparison then enables you to determine which, if any, of the tests actually shows a difference, and whether the difference is useful. The advantage of this procedure is that it gives you a much greater certainty of the usefulness of the test battery which you are going to use, and it gives you a freedom to try special tests or new tests adapted to your circumstances. A third advantage is that the procedure provides a basis for selling the tests and the testing program to others in the organization who might be hesitant to authorize the use of the tests until they have seen them in use on a small scale. The main disadvantage is the cost. It involves giving tests to a number of people on company time for no practical purpose other than the testing of the tests. In many situations, however, there are not enough employees to permit this kind of pre-testing, or your records as to performance may be deficient. Finally, if you are in a hurry to start using tests, you may not have time to go through this procedure.

The alternative method for choosing the tests to use is to depend on the judgment of some person who has had experience with them. The advantages are that you have immediately a basis for action. Furthermore, the expense of setting up the testing program is greatly reduced. Finally, this method is entirely adequate in a great many situations which permit the transfer of experience in other companies to your company. The main handicap in this method is that it restricts your choice of tests, usually, to the established standard commercial tests, and you are prevented from venturing into new and possibly more promising types of tests. Quite frequently you will have no choice as to whether to use expert judgment or a pre-trial in choosing your tests. You may not have the time or the freedom to test your present employees. Possibly, you are planning to hire for a newly created job.

In the course of the last twenty or thirty years a large volume of experience has been built up with respect to the value of tests for certain common jobs. In the clerical field, for example, any competent industrial psychologist can make a satisfactory selection of tests and test standards once he has had an opportunity to study the jobs for which you are hiring, the condition of your labor market, and some of the practical hiring procedures which must be accommodated. Similarly, in shop jobs such as certain assembly or machine operations, the hunch of an experienced industrial psychologist would be a sufficiently sound basis to go ahead with the initial phases of a testing program. There are other types of jobs similarly for which the fund of experience from which to draw is sufficiently broad so that one can act without hesitation.

I am well aware that many purists in the field of industrial psychology will challenge these statements. It is true that we still have much to learn about the use of tests in employment. On the other hand, we know enough now to produce useful results and the time is certainly here to make these testing techniques available to the smaller firms who cannot afford the more costly pre-trial procedures.

NEED FOR PROFESSIONAL HELP

The setting up of a testing program is clearly not a job for an amateur to tackle. There are many pitfalls in deciding, for example, whether testing methods can be used successfully, in determining whether or not a pre-trial is needed, in estimating the cost, in training your people in the mechanics of administering and scoring tests, training your people in the interpretation of test scores and in the statistical verification of the tests in use. The average personnel man, and I say this without being disrespectful, is no more qualified to do work of this kind than he is to design a machine for his plant.

Smaller firms rarely can justify the full time support of a competent test specialist. The only solution often is to secure the part time services of someone who has had experience in this type of work.

Those who set out to hire the services of an industrial psychologist frequently have some weird experiences. The profession is a new and growing one, and is not yet organized to the point of having recognized standards of training and experience, or any limitations as to who may practice in the field. As a result, there are many quacks and incompetents who are not easily distinguished superficially from the well trained men. It is well to be wary of anyone who takes on the label of "psychologist" for there are no restrictions as to the use of the title. We have practicing in Chicago a so-called psychologist who has only two qualifications: he feels that he likes to deal with people, and he clearly did not like his previous work as a lumberjack.

In speaking of the need for professional help, I don't mean to scare you away from the use of tests. After all, employment testing is not nearly as difficult and complicated as, for example, employment interviewing, which all of you are doing. Many persons after a brief period of experience with tests under competent guidance become entirely capable of operating their own program and of expanding it without further help. In fact, the object in hiring a psychologist, just as in the case of hiring a physician, is to have him relieve you of the need for his services as soon as possible.

The competent people in the field can be located, however, by anyone who pays some attention to certain things. Most of them are connected with consulting firms, university staffs, or are in full-time private practice. If you get a man who is a Diplomate in Industrial Psychology or at least a member of the American Psychological Association, you will know you have a man with some advanced professional training and experience. The best test, of course, is to contact some of the companies for whom your prospective adviser has actually done work.

SCOPE OF PROGRAM

Your satisfaction with the testing program will depend a great deal upon how well you fit the program to your own needs. This means that the testing program must be flexible, and capable of growth, contraction, and change. It must be aimed at specific objectives.

Probably the best approach in most companies is to start out with a very modest program, aimed, for example, at the testing of only one or two occupations

or employee groups. It is a good idea to tackle first an occupation that promises the best return for the initial effort, or one such as the testing of office employees that allows you to borrow most freely from the experience of other companies. With such a limited start, you have a chance to become familiar with the problems of testing, without going overboard on costs. You can lay a firm foundation for extending the program later to other occupational groups as your needs require, and as fast as your company can profit by the expansion. A modest start also tends to keep the testing in proper relationship to the balance of your employment program. Companies that try to start out with large scale testing or complete coverage of all jobs often find that they have bitten off more than they can chew. Too much time and attention is diverted from other necessary personnel activities and the program may collapse of its own weight or be discarded without a real trial.

The integration of the testing work with other aspects of the personnel program is also an important matter. This problem is met in two respects, first, in regard to the simple mechanics of giving tests without inconvenience to your applicants and interviewers, and, secondly, with regard to the use of test scores in arriving at a decision about the hiring or rejection of the applicant.

As to the mechanics of testing, the problems are rarely serious but they do require some thought and planning. For example, you will need testing space near the employment office. The amount of space depends upon the flow of applicants and the kinds of tests you are to use. I know of successful programs in which the tests are given right in the crowded waiting room. I have also worked with one company that easily handled over 3,000 applicants per year in a 10 x 10 foot testing room.

The choice of tests also is a factor in that the testing time must be kept to a minimum. The average test battery requires about 30 to 50 minutes per applicant, and this amount of time does not seem in practice to be too inconvenient for the applicant or the company. For some key occupations, a testing period of several hours may be worth while, but normally you should think in terms of perhaps a half-hour testing period. Most tests, by the way, can be given several applicants simultaneously, and this is a great convenience.

The point here is that a successful testing program must not require office space or time that is prohibitive. If the testing is a burden to your employees, or to the employment office staff, it will fall into disuse.

INTERPRETATION OF TEST SCORES

The real point of impact of a testing program upon the company occurs when someone reviews the applicant's record and decides whether to hire or not. What do the test scores mean?

A great amount of damage has been done by enthusiasts who have overstated the accuracy of employment tests and have given tests an unwarranted importance. When you stop to consider the matter, it is evident that using tests is not likely to cause an immediate and startling improvement. For one thing, giving people tests does nothing in itself to increase their competence; selection can never be better than is allowed by the quality of the applicants. Secondly,

most firms have a relatively stable employee group, and several years may pass before new employees, hired with the aid of the tests, become a major part of the employee group. Also the tests themselves are less than perfect, and even with the best of tests some selection errors will continue to be made.

On the other hand, there is ample reason to regard testing as a sound idea with respect to improved results and economy. In many companies, the rejection of only one or two potential problem employees each year will save more than the total cost of the testing program. An improvement of five or ten per cent in average productivity is often regarded as a feasible and worthwhile gain.

The tendency for people using tests for the first time is to rely too much on test scores. The test scores do seem accurate, impersonal and so definite. It is important, however, to recognize that test scores are approximations. Other factors in an employment situation are often just as critical as test scores. Using tests in no way relieves one of the necessity of considering all information about the applicant and then exercising judgment and common sense. To cite a ridiculous example, I recall the case of an interviewer who hired a certain boy for a messenger job, because this boy had the most favorable scores on a series of tests. However, he completely ignored the fact that the boy had a foot deformity that prevented day-long walking, and the fact that the boy was not particularly interested in that type of work. The tests were successful but the employment decision was faulty.

At best, the test scores will give you reliable information about certain factors known to be significant, but there are also many other factors necessary for job success which must be appraised by other means. Tests cannot replace or diminish the importance of other selection methods.

RESPONSIBILITY FOR
A TESTING PROGRAM

Let's look now at the question of responsibility for a testing program. Again, I'd like to urge the idea that the program will be useful only if it is made a normal part of the operation of the employment office. This means that those responsible for the employment decisions must also be responsible for the testing. Everyone who makes decisions about people should, in time, come to understand the meaning and limitations of test scores. This includes you key supervisors as well as the employment office personnel. It takes a little time to accomplish this, but key people will soon learn to appraise test scores with the same approach they use in appraising any other personal information about an applicant or an employee. The strangeness soon wears off.

As for the day to day giving of tests, scoring of them, and keeping related records, the work usually is simple and routine. There is rarely a need, except in larger companies, to have a person on the staff with formal training in testing. We usually find in the employment office a clerk, a stenographer or interviewer, sometimes the company nurse, who can handle the testing chores in a very adequate manner after brief instruction and supervised experience.

CASE HISTORIES

The comments I have made must seem rather general and abstract, but I did want to express to you some ideas about the factors influencing the effective use of testing in smaller companies. Testing techniques are well developed and there is a fund of experience on which you can draw in setting up a program for your own company. The main hazards are in expecting too much from the testing program, in trying such a program without adequate advice, and in going into a program that is misdirected or on a scale that is too large for your budget. A large number of smaller companies, during recent years have used tests with very satisfactory results. I believe it will be helpful if we take a few minutes to describe some actual cases.

SORTER LISTERS AND
CURRENCY COUNTERS

Let's consider first the case of a bank. This bank had no previous experience with employment tests. The specific purpose of testing as they saw it, was somehow to improve the selection of sorter listers and currency counters. The sorter listers, by the way, are girls who sort checks for clearance, list and balance the bundles of checks and arrange them for transmission to the member banks. The currency counters are the girls who sort currency by denomination, remove all soiled, torn, defaced and counterfeit currency, and verify the count. These two occupational groups account for over half of the new hires in this particular bank.

After considerable discussion and a detailed study of the operations, a three-step program was worked out. The first step was to try out paper-and-pencil tests to see if any would prove useful in selection. The second step was to try out dexterity tests, as the productivity was, in the opinion of some people, limited mainly by the dexterity of the operators. The third step was to check the vision of employees as a factor in job performance.

When we asked for employee volunteers to take some tests on a trial basis we found, as usual, that they were interested in the project and very cooperative. For the trial group we used all employees who were spending full time on one or the other of these two jobs, and who had been on the job for a year or longer. This gave us about fifty people as our experimental group. We then gave to these employees a series of 14 brief tests. Also, we secured from the records information about their individual productivity during the past twelve months and their error rate. These records were supplemented by the supervisor's ratings on the over-all performance of each employee.

We found, as we expected, that some of these tests appeared to give scores related to performance and others did not. When we selected the five most promising tests and compared test scores with an index of performance, we got the results shown in Exhibit I.

These figures are not particularly impressive to those familiar with testing because they are based on a small group of employees. However, as preliminary evidence that the tests will prove to be useful, we regard the results as very satisfactory. These tests are currently being used in the employment of new sorter listers and currency sorters.

The second step in the program is now in progress, and these same employees were just last week given a series of three dexterity tests. The results have not yet been analyzed. This small project for the testing of two occupational groups in this organization provided an easy introduction to the principles of testing. Considerable interest and support was secured from the supervisors involved. Fortunately an interviewer has developed a great deal of interest in the program, and shows some promise of becoming a competent person for handling the testing program for the long run. The test battery presently in use we expect to modify as we get the results from the other phases of the program, in order that we will end up with a battery of tests requiring not over forty-five minutes per applicant that will give the best results in this situation.

CLERICAL EMPLOYEES

The previous example was one which seemed to require a pre-trial of the tests in order to decide what test to use. The reason was that relatively little previous work had been done in banks with that type of personnel. Let's talk now of a different kind of situation involving the testing of people for standard occupations such as those found in nearly all offices, namely, stenographers, secretaries, typists, messengers and general clerical employees.

The case I am going to describe is that of a manufacturer of farm implements. Again, this was an organization with no previous experience in the use of employment tests. Their practice was rather typical in that they ordinarily employed office people not for a specific occupation but for a progression or series of jobs. For example, when they hired a messenger, they anticipated that the messenger would eventually be promoted to a higher position, such as typist, stenographer, or bookkeeper. The need was to use selection tests which were sufficiently general in nature to predict success on a variety of office jobs.

In this instance, it was not felt necessary to use any pre-trial of the tests. Instead, their consultant recommended the use of a mental ability test, a general clerical skills test, a typing test and a shorthand test, and for these tests he set up arbitrary standards which varied somewhat depending upon the particular job for which the applicant was being considered.

It took about two or three days to investigate this situation, set up the tests recommended for their use and to train one of the girls in the employment office to administer and score the tests. The test battery was put into use immediately and the test results were made an element in the appraisal of applicants.

As in any testing program, it was considered important to find out as objectively as possible whether the tests were serving their purpose. Therefore, at the end of the first year, a survey was made of all new employees hired in that period to determine how their performance related to their test scores at the time of hiring. The results of this survey are shown in Exhibit II. These results concern only those employees who actually were hired; that is, the lowest-scoring applicants had been eliminated. Even with this condition, there remains a definite relationship between performance and test scores among those who successfully met the standards imposed by the company. In the case of the clerical skills test, we apparently had drawn a dud, as there was very little relationship between the

test scores and subsequent job performance. A more detailed analysis of the records, however, indicated that this test was particularly useful in certain occupations and the test is being continued on a trial basis for an additional period of time to check this possibility.

WOODWORKING MACHINE OPERATORS

Let's consider next the case of a company in the furniture manufacturing business. This company, due to a need for expansion, had encountered some serious problems in the plant relating to low production rates, poor quality work and an inability to build up the skills necessary to operate the shop adequately. In this company, the practice was to hire men for a sequence of jobs, as they had been unable for many years to hire skilled men for specific occupations. A new man, unskilled, would be likely to start as a trucker, receive some training as a machine helper or on a drill press, and then go perhaps into sanding operations, machine operations or assembly. Those who showed unusual promise might be promoted on to the more complex operations such as sticker or double end tenoner operation, form sanding or repair work.

The company decided to go ahead immediately with the use of two tests, which, after discussion, appeared to be the most promising. These tests had to be chosen with some special considerations in mind. For example, the plant was located in Kentucky, in an area where educational standards are extremely low. Many applicants could scarcely read or write. In addition, because of the high rate of hiring, and the high percentage of rejections at the employment office, the testing battery had to be brief to permit the handling of large numbers of men. We solved the first problem by giving an intelligence test, not in a paper-and-pencil form, but in a recorded form, so that the men received oral directions and had a minimum of writing to do. A second test was used which was designed to sample their understanding of elementary mechanics and physics, and this test was presented in pictorial form. The second problem was solved by giving the tests to the applicants in groups, as many as ten to fifteen at a time.

A check was made to see whether the tests actually showed some relationship to the performance of the men on the job. The results in this case are shown in Exhibit III.

Subsequent to this initial test program, the company decided to undertake a study of dexterity tests in further refining their selection. A survey was made of available dexterity tests, and a detailed study of the shop jobs was made. From this preliminary work, we arrived at the design of an entirely new dexterity test intended to simulate the work elements of importance in most jobs in the plant.

In this instance we were not in as much of a hurry as in the case of the paper-and-pencil tests and the test itself was untried, so we chose to make a pretrial of the test before using it in actual employment. We secured the voluntary cooperation of men from the shop, and compared their trial test scores with performance records and supervisory ratings. The test showed a correlation of +.43 with performance, about the same as in the case of the paper-and-pencil tests.

Incidentally, at this plant, we found working as a clerk in the employ-
ment office a young man who had had experience in the Army in test administration.
This young man has easily taken over the testing program and will handle it ade-
quately through the coming years with a minimum of outside assistance.

A PACKAGED PROGRAM

All through this talk, I have oriented my comments toward the small
company that wishes to work towards a complete testing program for permanent use.
It should be recognized, however, that there are some situations in which a com-
pany has need of testing only for a spot job, or a limited emergency. In cases
like this, it seldom is worthwhile for the company to master the intricacies of
setting up a testing program and setting up the administrative details. It
probably is best to purchase the testing and appraisal services from an outside
person or agency that is qualified to handle it.

To illustrate, consider the case of the small farm implement company
here in Illinois that found it necessary some months ago to employ about eight or
ten time study men, greatly expanding their existing small staff. Because of the
unfavorable market for that type of personnel, they decided to accept untrained
people who had the qualifications that would enable them quickly to learn the job.
They felt that it would be difficult to appraise untrained people for work of this
kind without the help of some aid, such as employment tests.

An outside firm was accordingly hired to test and appraise a group of
applicants previously screened by the company. These candidates, about 25 or 30
in all, were given an extensive battery of tests, designed to sample their mental
ability, knowledge of simple arithmetic, mathematical reasoning, mechanical com-
prehension and other factors that were felt to be of importance for the job in
question. The results for this group of applicants were compared with the stan-
dards found necessary by other companies who had been hiring similar personnel
for a number of years and had carefully validated their test scores. The implement
company received a brief report on each applicant which gave them substantial help
in weeding out the grossly unfit, and directing their attention towards the more
promising of the candidates, who were then subjected to the usual interviewing
and other screening methods.

In this specific instance, the original group selected by the company
for testing did not provide the number of men they needed. This led to some
revision of the standards the company had in mind and has greatly facilitated
subsequent employment of men needed to maintain this force of time study men.

CONCLUSIONS

Obviously, there is much more to be said about using selection tests
in smaller organizations, much more than we have time for today. However, I
hope that these brief comments have given some assurance that testing is appro-
priate for the smaller companies as well as for the larger ones and that there
are practical methods for beginning such a program without an undue obligation
as to cost, time or personnel. During the balance of the morning you will have an
opportunity to explore any particular phases of the problem that seem most impor-
tant or most interesting to you.

EXHIBIT I

RELATIONSHIP BETWEEN TEST SCORES AND JOB PERFORMANCE

SORTER LISTERS

Employee Passing
4 or 5 of 5
Tests

Employee Fail-
ing to Pass 4
or 5 of Tests

```
0    10    20    30    40    50    60    70
```

Probability of Above Average Job Performance

CURRENCY COUNTERS

Employee Passing
4 or 5 of 5
Tests

Employee Fail-
ing to Pass 4
or 5 of Tests

```
0    10    20    30    40    50    60    70
```

Probability of Above Average Job Performance
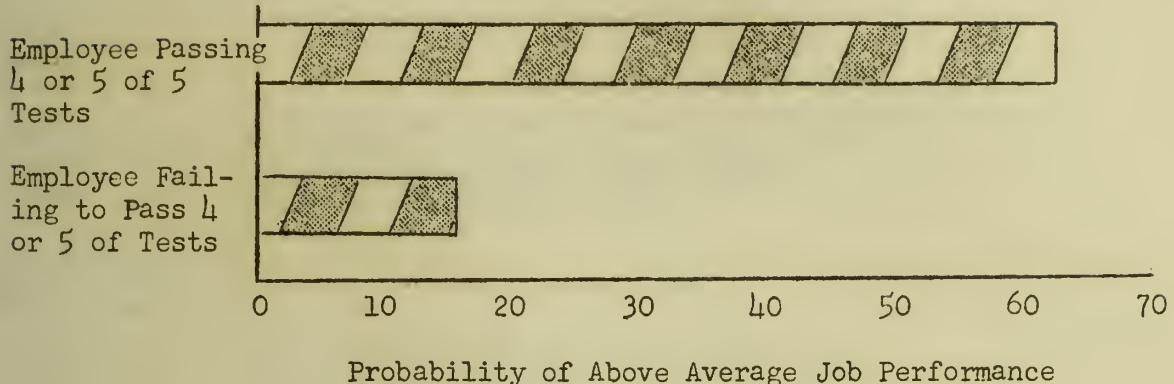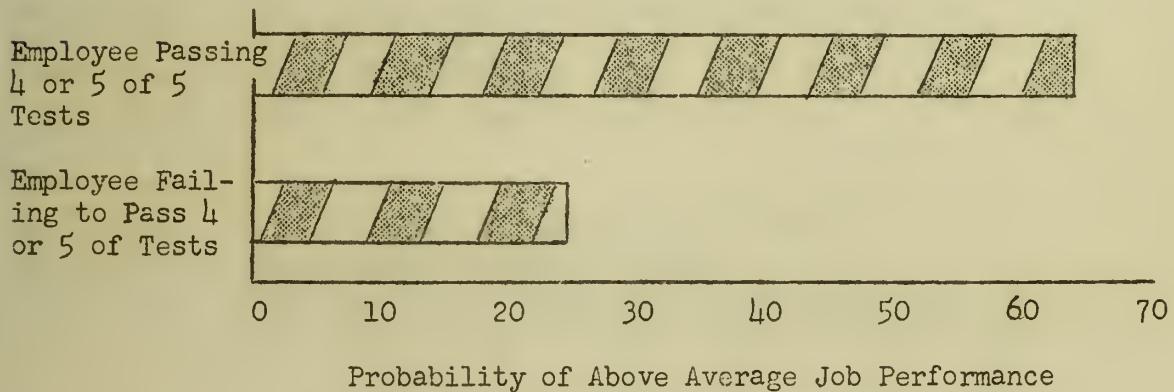
SAMPLE: All employees on job over one year; 25 and 20 cases
          respectively.

TESTS: Mental ability, number checking, name checking, code
          interpretation, proofreading.

CRITERION OF PERFORMANCE: Production rate, error rate, and super-
          visors' ratings, all pooled and adjusted for length of
          service.

A. T. Kearney & Company

EXHIBIT II

RELATIONSHIP BETWEEN TEST SCORES AND JOB PERFORMANCE

OFFICE - CLERICAL EMPLOYEES

Mental Ability Test
- Upper Third
- Middle Third
- Lower Third
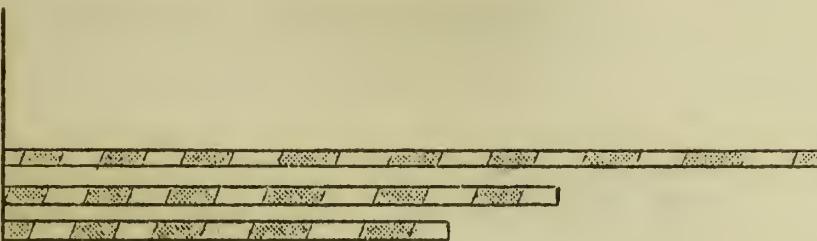
Typing Speed Test
- Upper Third
- Middle Third
- Lower Third
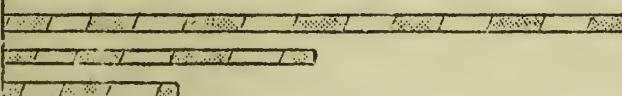
Shorthand Test
- Upper Third
- Middle Third
- Lower Third
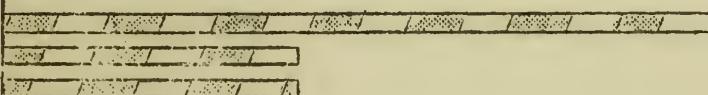
Clerical Skills Test
- Upper Third
- Middle Third
- Lower Third
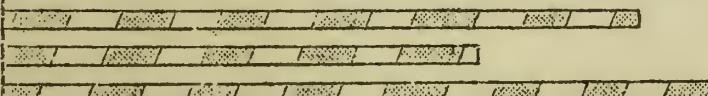
Probability of Above Average Job Performance

SAMPLE: All new female office workers hired in two year span.
Total number - 170.

CRITERION OF PERFORMANCE: Supervisors' ratings made periodically
in connection with salary adjustments.

A. T. Kearney & Company

EXHIBIT III

RELATIONSHIP BETWEEN TEST SCORES AND JOB PERFORMANCE

PRODUCTION WORKERS, FURNITURE PLANT

Probability of Above Average Job Performance
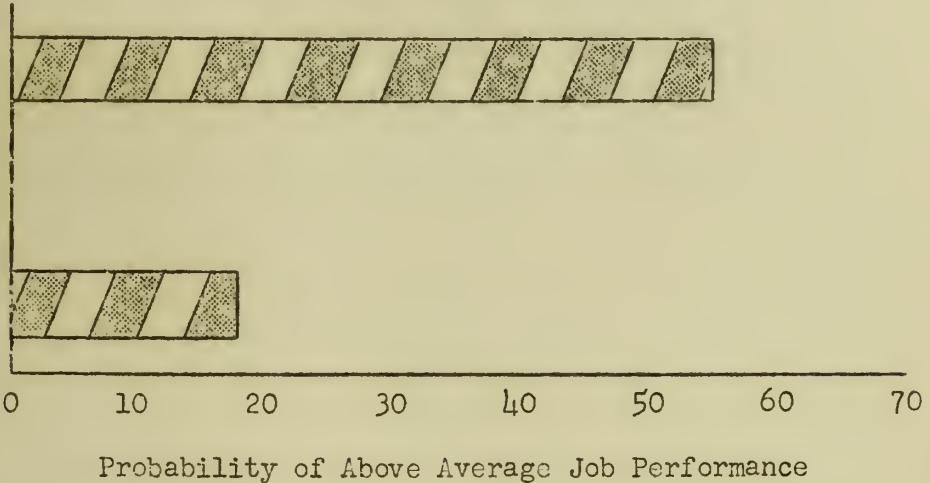
SAMPLE: 98 volunteer employees with service of one year or more
representing a variety of job assignments.

TESTS: Oral Directions Test and Mechanical Comprehension Test.
Employees with average percentile rank of 40 or more were
considered to have "favorable" test scores.

CRITERION OF PERFORMANCE: Supervisors' performance ratings using
paired comparison method.

A. T. Kearney & Company

EMPLOYMENT INTERVIEWS

Ira B. Cross, Jr.
Executive Offices, Robert N. McMurry and Co.
Chicago, Illinois

Checking the Applicant's History

Applicants can be expected to present their stories in as favorable a light as possible. Since they want to be hired, it would be unnatural for them to do anything else. In their eagerness to impress a prospective employer, however, applicants may substitute fiction for fact in any of the following ways:

1. **By giving a favorable slant**
   Almost all applicants slant their work histories in their own favor. Some, however, carry this to such an extreme that the truth is actually obscured. Applicants who have changed jobs frequently are usually poor employment risks. Yet these people often present the smoothest, most plausible story of how their experience has broadened as a result of their various jobs. Their stories are so believable because they are accomplished "job shoppers." They have learned by experience to tell their stories cleverly.

2. **By covering up**
   Unfavorable facts in applicants' work histories are sometimes concealed by stretching dates of employment to cover up periods of unemployment or jobs involving poor references; by inflating salary figures; or by claiming a higher level of skill or responsibility than they actually reached. An applicant for a junior executive position, for example, stated in his application that he had been employed by Company A from March, 1939, to September, 1945, and that he had then left to accept a position with Company B. The check with Company B was completely satisfactory. However, a telephone call to Company A revealed that he had actually left its employ in January, 1945. Further investigation uncovered the fact that from January to September, 1945, he had worked with Company C in a job almost identical with the one for which he was applying and that in this position he had been a complete failure.

   The most common cover-up is found in an applicant's stated reasons for leaving a job. In one case, a man stated in his application that he had left a previous employer because he felt that he had no future with the company. A check with this company disclosed that the man had left because his theft of $190.00 from the petty cash fund had been discovered. His future with the company was certainly poor, but for a somewhat different reason than he had implied in his application.

   Applicants also attempt to cover up personal troubles such as drinking, gambling, or domestic strife which have caused them to fail on previous jobs. They assume that the prospective employer will contact only personal references rather than previous employers, and that such misstatements will be undetected.

3. **By falsifying**
   Occasionally an applicant will deliberately lie about his qualifications. A distinguished looking, middle-aged man who applied for a $10,000 a year executive position claimed to have A.B., M.A., and L.L.B. degrees. Telephone checks revealed that actually this man had "flunked out" of three universities and had failed to obtain even a year's credit, much less a degree. The paradox of this situation was that the man had actually been hired for three well-paid executive positions, because his employers accepted his "academic background" without question. He had not been successful on any of these jobs.

Because people will slant their stories in their own favor, and because some of them will cover up and falsify, it is essential that their histories be checked with other sources so that complete and accurate facts will be available.

Methods of Checking Other Sources

There are many ways in which an employer may check the information provided by applicants:

1. "To whom it may concern" letters.
2. Personal references given by the applicant.
3. Official college transcripts.
4. Service discharge papers.
5. Credit reports.
6. Checks with the police and the F.B.I.
7. Checks with previous employers.
    a. Written inquires mailed to previous employers.
    b. Personal visits with former employers.
    c. Telephone checks with previous employers.
8. Telephone checks with schools.

The advantages and disadvantages of each of these methods are discussed below.

"TO WHOM IT MAY CONCERN" LETTERS: This type of reference letter is of little value except to provide dates of employment, and the job or jobs on which the applicant has worked. Obviously, no applicant will produce a letter which is not a complimentary one.

PERSONAL REFERENCES: Personal references furnished by the applicant can seldom be taken at their face value. No one looking for a job will intentionally refer a prospective employer to someone who will give him an unsatisfactory report. Only rarely will a personal reference contribute uncomplimentary information. Personal references may have value, however, where the applicant has no work history at all, or where he will need contacts to do the job for which he is applying. Where contacts are valuable on the job the status and occupation of those given as references may be revealing.

COLLEGE TRANSCRIPTS: Transcripts of courses taken and grades attained are a matter of record in all colleges and universities. However, some institutions will furnish transcripts only to former students, and many make a small charge for furnishing this information. Since it takes from several days to several weeks to obtain this information, consideration must also be given to the time factor involved. For professional, technical and managerial jobs, a record of the applicant's scholastic achievements is essential to the prospective employer and is well worth the time and effort involved in securing it.

SERVICE DISCHARGE PAPERS: Former servicemen often have their discharge papers with them. Some states forbid employers to request discharge papers from an applicant before employment. If the state does not prohibit this practice discharge papers should be checked and the date and type of discharge should be noted. Some ex-servicemen also carry a form giving information on their service experience which is supposed to indicate vocational aptitudes. Unfortunately, this information is usually of little real value to prospective employers.
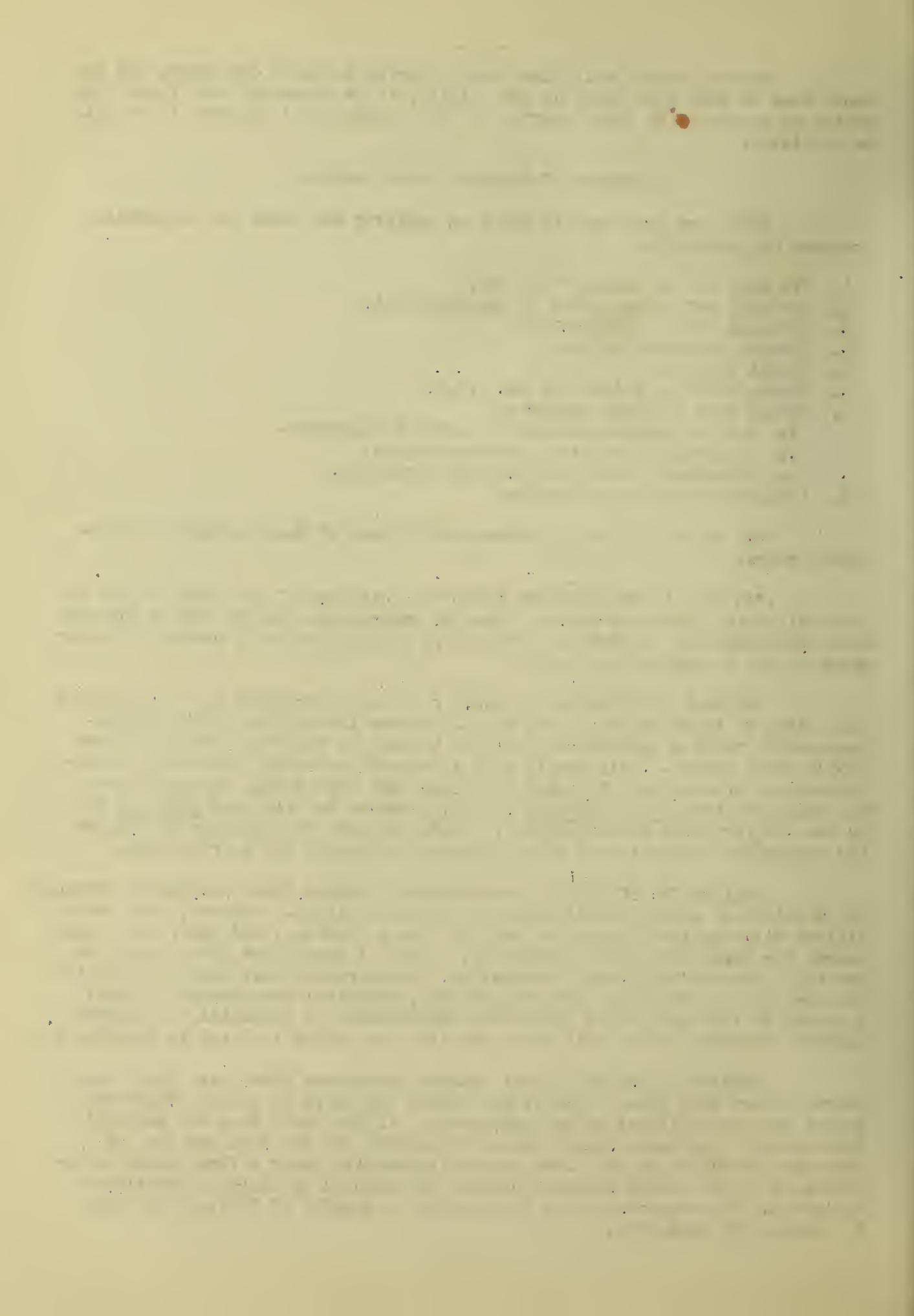
CREDIT REPORTS: Credit reporting agencies such as the Retail Credit Company, Hooper-Holmes, and other national and local credit organizations will conduct investigations and give personal reports on applicants. These reports provide information about the person's financial standing, his credit rating, and a check of police, job, and school records of the applicant. Frequently they also include comments from neighbors, friends, and business acquaintances. However, credit reports often have two major deficiencies. First, many investigators are limited in their capabilities, and the appraisal of a man's business ability or performance on the job is often superficial or based on second-hand information. In such cases, the reports are mainly concerned with an individual's reputed integrity, financial standing, and his personal life. Second, it usually takes a week or more to get a credit report; often this is too long a time to wait to make a decision on the candidate.

Credit reports have value as supplementary information, however, in the case of applicants for executive positions and other positions of trust.

CHECKS WITH THE POLICE AND THE F.B.I.: In most cases, checks of this nature do not produce new information, although on occasion they can uncover very significant facts. Police and F.B.I. checks should be made on all applicants who apply for positions involving handling money or valuable property. Some companies make these checks directly while others rely on their bonding companies to get the information. Since the F.B.I. is reluctant to release information direct to employers, arrangements to obtain it must usually be made through the local police authorities.

CHECKS WITH PREVIOUS EMPLOYERS: The best source of information about an applicant is his previous employers. They know from first-hand experience how he has worked out on the job. They have observed him in action. They have seen him under pressure. Frequently they know some of his personal weaknesses - whether he drinks to excess, gambles, or gets into debt consistently. And, unlike his friends and relatives, they will probably have no particular reason to withhold any unfavorable information.

Checks with previous employers may be made in three ways. The first method is the written inquiry. This involves sending a letter or questionnaire to former employers with a request for certain information about the applicant. This is a very slow technique, however, and many employers are too busy to compose a reply which will contain information of real value. Some employers are also reluctant to put criticisms in writing, fearing that their comments will not be kept confidential.

The second method is the personal visit. Under proper conditions this is an excellent means of obtaining information, but it has the drawback of being expensive and time-consuming. In fact, it is rarely practical except when the previous employer is located in the same community. To investigate applicants for all jobs in this manner would be out of the question. It should be done if possible, however, in the case of applicants for top level positions.

The third and most satisfactory method of contacting previous employers is the telephone check. Because this method has universal application and provides such excellent results, it is discussed in considerable detail below.

Why the Telephone Check is Effective

1. It is the most rapid means of getting information about the applicant.
Ordinarily each telephone check requires only five to ten minutes. Checks
may be made while the applicant is waiting to be interviewed or while he is
taking tests. Thus it yields much valuable information without increasing
the time of the employment procedure.

2. More and better information is gained. If you use the proper approach
in a telephone conversation, you can easily induce previous employers to "open
up," and to say things they would never put in writing. When the facts you
uncover do not seem to correlate with those on the application form, you can
probe for further information; a technique which is impossible if you use a
written inquiry.

3. It is an inexpensive means of investigation. Ordinarily telephone checks
involve only two or three local phone calls, and the considerably greater
expense of personal visits and of correspondence is avoided. Even in those
few cases when it is necessary to make long distance calls, the cost is usu-
ally well justified by the value of the information obtained.

4. The information is in the hands of the interviewer before the interview.
Experience has shown that making this check before the interview has several
important advantages. Certainly it is easier for the interviewer to plan his
questions if he has advance information. He will know what areas to stress,
what items require careful probing and what aspects of the applicant's back-
ground need clarification. Checking before the interview is also a time-
saver. If the interview is conducted before the telephone check is made, any
discrepancies between what the applicant has put down on his application
form and what are actually the facts will not be noted in time to investigate
them in the interview. Then, when these discrepancies are discovered, a
second interview may be required. Such a procedure is unnecessary if the
checking is done before the interview.

5. Tone of voice and inflection are revealing. The way in which an em-
ployer answers a question such as: "Would you re-employ?" will give a valuable
hint as to his actual opinion of the applicant. An alert investigator can learn
much from the tone of voice and inflection of the person contacted.

6. It is a systematic technique for getting information. The telephone check
is a carefully planned inquiry, designed specifically to get the information
needed on every applicant. The questions on the form are arranged in a
specific order so that by the time the more personal topics are reached, the
employer is talking freely.

What Role Does the Telephone Check
Play in Selection?

The telephone check in itself is not a screening device in most
situations. It may be used to screen, however, when adverse reports are
obtained from most of the applicant's former employers, and there is no doubt
that he is undesirable. The main objectives of the telephone check are:

1. To verify the statements made by the applicant on the application form.
2. To obtain previous employers' estimates of the applicant's strong and
    weak points so that these can be carefully explored in the interview.
3. To obtain an over-all appraisal of the applicant from people who have
    actually worked with him.

How to Make Telephone Checks
with Former Employers

WHOM TO CONTACT: There are two sources you can contact in making telephone checks with former employers: (1) the applicant's immediate supervisor; (2) the personnel records office. You will get better results by contacting the former supervisor. He will be able to give many details about the individual's capacities and personality characteristics which do not appear on the personnel records. In cases where exact dates of employment are of particular interest, it may be necessary to contact both the supervisor and the personnel records office.

NOTE: Never check with an applicant's present employer unless he has given you specific permission to do so.

THE APPROACH: Your approach is all-important in getting the information you want. Obviously no employer or personnel department is going to give out information unless they know who is calling and why the information is needed. Identify yourself immediately, and then make a simple statement such as:

> "I would like to verify some information given to us by
> Mr. Thompson, a former employee of yours, who is applying
> for a position with us."

Emphasizing the word "verify" will act as an opening wedge to obtaining additional information that is not just a verification of facts given by the applicant.

WHAT IF YOU MEET RESISTANCE? Occasionally the person contacted is reluctant to reveal any information. Usually this reluctance may be overcome in one of two ways:

1. If it is evident that the previous employer or supervisor is unwilling to talk because he is not sure of your identity, ask him to call back. If it is a long distance call, tell him to call collect.

2. If the person contacted cannot give out information because of a company policy, ask to speak to his supervisor and offer an explanation something like this:

> "This is Mr. Jones of Ace Publishing Company speaking. We
> have a Mr. Thompson in mind for a job with our organization
> and understand that he worked for you as a sales promotion
> man in 1945."

Pause here for a moment and then continue:

> "We're naturally particular about the type of people we
> take into our organization and wondered if you could give
> us some information about the man on a strictly confidential
> basis. Could you verify some of the statements he has made
> in his application?"

State that you understand perfectly that the company policy does not permit the giving of information over the phone but you would like very much to make a decision about the man that day. If the person contacted will not release the information, and if this is a particularly important interview, ask if you may speak to <u>his</u> supervisor. Then repeat your story. It may require two or three contacts, in some cases, before the right person is reached.

In nearly every instance this straightforward approach brings results. Either the person contacted will tell you what you want to know, or he will turn you over to someone who can.

TECHNIQUES IN USING THE TELEPHONE CHECK: The first facts that you will want to uncover are the dates of employment. Check both the <u>month</u> and the <u>year</u>. Then follow the general outline of the telephone check <u>form</u>, filling in the remaining blanks as you go.

<u>The Key Question</u>: The key question on the check form (purposely placed near the end so the person contacted will be talking freely) is the question: "<u>Would you rehire the man?</u>" The person contacted frequently will reveal facts of particular importance in indicating why he would or would not rehire the applicant. Often a report which has been rather favorable up to this point will undergo a drastic change. It should be noted, however, that some companies have a policy against rehiring former employees. In such cases it is important to determine what the answer would be if there were not such a policy.

<u>Questions printed in red</u>: The questions which are printed in red are designed to help the investigator in interpreting the answers received. They are <u>never</u> asked directly. However, they will frequently suggest subjects on <u>which</u> the investigator should probe for more complete information.

<u>Double check questions</u>: The final questions, "What are the man's strong points?" and "What are the man's weak points?" serve as a check to catch any information that may have been missed and offer a final opportunity for the person to volunteer further information.

<u>Probe inconsistencies</u>: Follow-up to insure complete information. Often inconsistencies or discrepancies are discovered. These should be probed in detail. You may discover very significant facts.

There are three other general rules concerning the use of the telephone check:

<u>Keep confidences</u>: The information obtained through the telephone check is strictly confidential. <u>Under no circumstances should the interviewer reveal to the applicant anything which a previous employer has said.</u> If the former employer discovers that his remarks were revealed to the applicant, he may form an unfavorable opinion of your organization. From both an ethical and public relations standpoint, such information should never be revealed.

<u>Check more than one past employer</u>: Getting the viewpoints of several people is <u>always</u> advisable. Occasionally you will find that a previous employer has a prejudice or bias about an applicant on purely personal grounds. This may happen if an extremely valuable employee leaves an organization. Sometimes the employer may try to block his efforts to get another job. Such an extreme case very seldom occurs, but it points out the danger of judging an applicant solely on the word of <u>one</u> employer. If possible, two or more telephone checks should be made <u>on</u> each applicant.

Develope cooperative relationships: It is often advisable to become personally acquainted with the personnel managers of the companies with which you will make most of your telephone checks. This facilitates cooperation. Naturally, all such arrangements must be reciprocal.

How to Make Telephone Checks
with Schools

Many young applicants have no work record at all, or have held only part-time jobs. In these cases, checks with previous employers are impossible, and the school is the place to go for additional information. With colleges and universities, the best source of information on former students is the registrar's office or, in a small school, the dean. Then, for more personal information, check with members of the faculty or with members of the administrative organization who knew the applicant during his student days. Most large high schools have guidance or vocational counselors who know all of the students who graduate. In smaller high schools the principal will usually be able to give this information. If you make such checks frequently, it will be a real advantage to establish a personal relationship with the appropriate representatives of key colleges and schools so that you can obtain complete information quickly.

The Patterned Interview

In the preceding steps of the selection program you have accomplished two important things. First, you have eliminated those applicants who are clearly unqualified. Second, you have obtained a fairly good initial picture of the remaining candidates. From the application, the tests, and the checks with other sources, you have a fairly good conception of what each applicant can do. During the interview you will round out this "can do" picture by thoroughly reviewing his work and school history. The remaining problem is to determine what the applicant will do. This is precisely where the Patterned Interview makes its most vital contribution.

"Will do" is the extent to which the candidate may be expected to make use of his basic equipment (his "can do"). This is determined by the individual's character traits, emotional maturity, and motivation. Evaluating will do may be illustrated by means of an example from everyday life.

Suppose you are called upon to give your impression of someone whom you have known very well for a long, long time -- that you are asked to predict how that person will perform in a particular situation. You might say, "Mary will work hard," or "Bill's selfishness will get him into trouble." And nine times out of ten you will be right.

Why is it that you are able to make such accurate predictions in this kind of a situation? There are two good reasons. First....You know Mary and Bill. You have observed them in action. You know that Mary has always been a hard worker and that Bill has always been selfish. You are not guessing at what Mary and Bill will do. You are predicting what they will do on the basis of how they have performed under many similar circumstances in the past. Although you may not have thought of it in these terms you are actually saying that one of Mary's basic habits is industry and that one of Bill's habits is selfishness. Second....you assume that Mary and Bill will continue to show these habits. And once again you are right. Unless something very exceptional occurs in a person's life he will always exhibit the same basic habits. In other words, a person's basic habits rarely change.

The principles underlying this illustration are vitally important in predicting job success. In fact, they form the basis on which the Patterned Interview operates:

1. What a person will do is largely determined by his basic habits.

2. These basic habits develop early in life. They become deeply rooted and are almost impossible to change.

3. A careful review of what a person has done in all major areas of his life -- work, school, early home life, etc., will reveal his basic habit patterns.

4. With a comprehensive knowledge of these patterns it is possible to predict how they will influence his performance on the job for which he is being considered.

In other words, the Patterned Interview is actually the equivalent of a long and close acquaintanceship with the applicant. In fact, it usually provides an even better knowledge of the individual. It gives you a clear picture of what he has done so that you can determine his basic habit patterns. Using this information, you can predict with surprising accuracy what the applicant will do.

How is the Patterned Interview Different?

Almost every company uses some sort of interview in selecting and placing personnel. But most ordinary interviewing procedures have three major weaknesses. First of all, the interviewer does not get complete or relevant information (some interviewers do not even know precisely what information to look for). Often an interviewer will confine his questions to those dealing with the applicant's skills and training, and some interviewers will talk to a candidate for quite a while without finding out anything about him except the fact that they are both interested in golf or both went to the same school.

The second major weakness of the ordinary interview is that the interviewer does not know how to interpret the information he has gathered. He does not know what it means. To be sure, most experienced interviewers are able to evaluate the can do factor quite accurately, but they do not know the significance of the patterns of an individual's past behavior for predicting future behavior. They lack a yardstick with which to measure the will do factor, and they are also very apt to be influenced by the excuses, rationalizations and promises of the applicant rather than determining what he will do on the basis of what he actually has done.

The third weakness of the ordinary interview is that it provides no control on the personal biases and prejudices of the interviewer. Most people, for example, have a definite mental picture of how a salesman, a janitor, an executive, or a clerk should look. These mental pictures are called stereotypes. Obviously it is risky to attempt to determine a person's over-all qualifications simply by the way he looks.

The interviewer's own personal experiences may also be a source of error. One interviewer may, for example, always reject former automobile salesmen because he once hired one who turned out to be lazy and no good. Another interviewer may have completely forgotten that he once had a painful and humiliating experience with a teacher who had big ears and red hair. Yet when an applicant who has such characteristics comes in this interviewer is apt to take an instant dislike to him and turn him down. If, on the other hand, the applicant reminds the interviewer of someone he likes, he may hire him, regardless of his qualifications. In each case, the judgment is not a sound one.

A further source of bias are the so-called "traditional" beliefs about people. These include such convictions as:

1. People with close-set eyes are always dishonest.

2. A limp handshake means a weak character.

3. People who cannot look one in the eye are dishonest.

None of these or other similar convictions has any scientific justification. It is important that such beliefs be supplanted by a more factual approach.

The Patterned Interview has been designed to overcome the faults and limitations of ordinary interviewing procedures. It provides four important controls:

1. A systematic plan for the interviewer to follow. Complete coverage of the candidate's work experience, education and training, family background, present domestic and social situation, financial condition, and health is provided. The interviewer knows exactly what information he must obtain.

2. A technique for getting the facts. A series of penetrating and meaningful questions bring out the specific information the interviewer needs to make an accurate evaluation of the candidate. The questions start with subjects on which the candidate expects to give answers. Then, when a good relationship has been established, they progress to the more personal topics. This technique brings out a wealth of pertinent facts about the candidate.

3. A set of principles to use in interpreting the facts. These principles not only make it possible for the interviewer to determine what the applicant can do, but through an understanding of character make-up, motivation, and emotional maturity, also permit him to predict what the applicant will do. Thus, the interviewer can match the man to the job more effectively.

4. A method of minimizing personal biases and prejudices. Because the interviewer is required to get and analyze all the facts, he is much less likely to be influenced by stereotypes, or to allow his own personal experiences or beliefs to influence his judgment.

Because of these important controls, the Patterned Interview is an effective and reliable instrument for predicting job success.
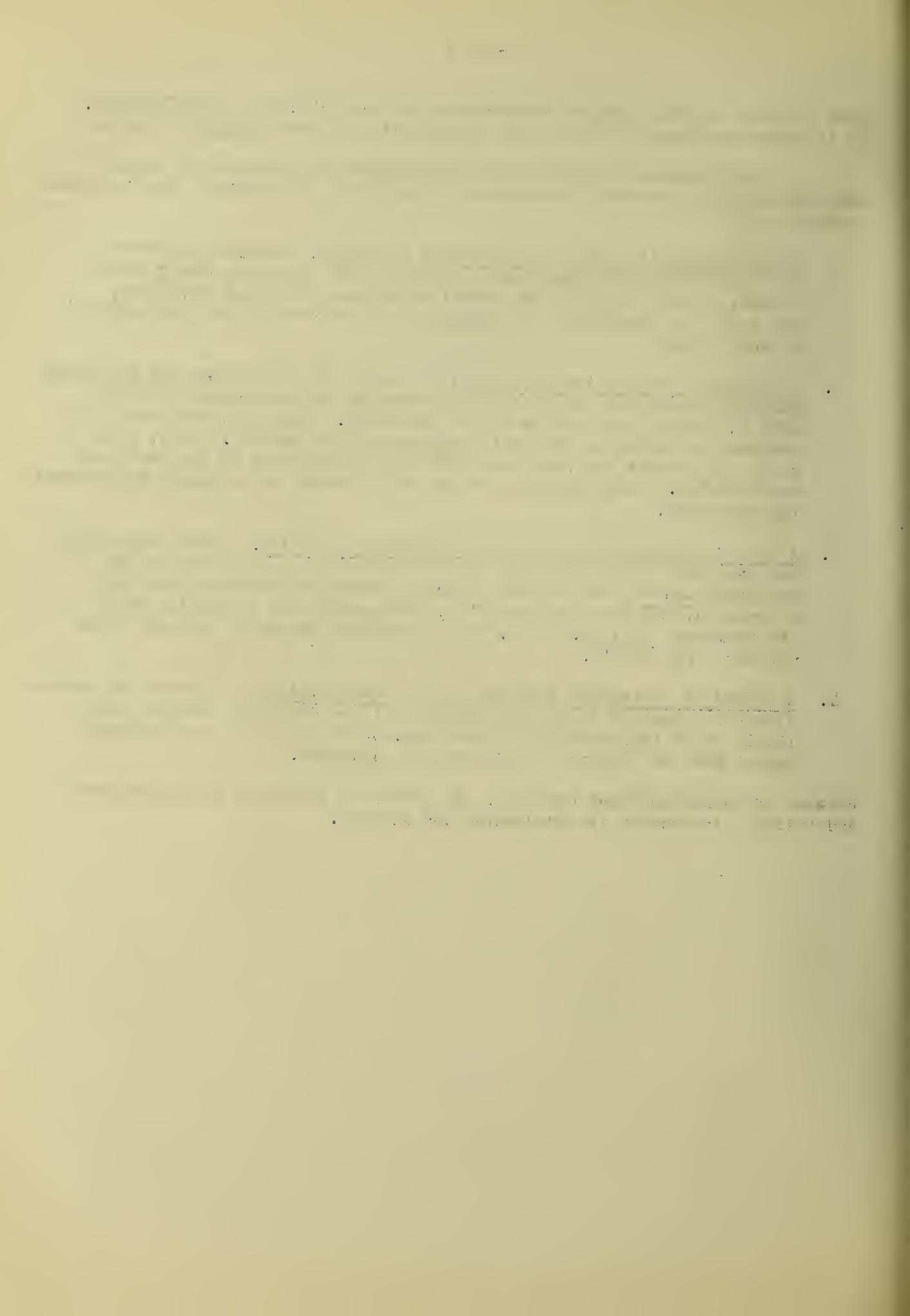
Using the Patterned Interview

When an interviewer is first introduced to the Patterned Interview, he can profit from a few fundamental rules which have been developed from years of experience.

The prime purpose of the Patterned Interview is to obtain the facts about the applicant, regardless of whether these facts are favorable or unfavorable. To achieve this goal, the applicant must be encouraged to talk freely, and his natural tendency to conceal or to play down unfavorable information must be overcome. When an applicant believes that certain facts are unfavorable, he will usually follow one of these courses:

1. He may say nothing about them. (This can be overcome by watching for gaps in his record and probing on points where his statements don't check with the information from other sources.)

2. He may deliberately lie. (When he does, contradictions which can be probed are almost sure to arise, since few people can lie consistently for any length of time.)

3. He may admit unfavorable facts but provide plausible excuses or alibis. (When the interviewer suspects the applicant's statements are surface explanations, he should probe behind them.)

4. He may become defensive or indignant. (The interviewer should find out the cause of the resistance and determine why the applicant is unwilling to reveal the information.)

Following the fundamental rules for using the Patterned Interview which are listed below will help to insure that all of the necessary information is obtained from the applicant.

1. PREPARE FOR THE INTERVIEW.

Before starting the interview, the interviewer should study the application, the test results, and the information obtained from other sources. This advance information provides a basis for planning the interview and points out the areas which require special attention. However, it should never be used as a substitute for any part of the interview. All phases of the applicant's background should be thoroughly covered during the interview, because frequently an interviewer will find important inconsistencies between what the applicant has written and what he says.

2. PROVIDE PROPER SURROUNDINGS FOR THE INTERVIEW.

No one wants to talk confidentially about himself when other people are listening. If at all possible, interviews should be conducted in a private office. If this is out of the question, choose a quiet spot with a minimum of distractions and interruptions.

3. PUT THE APPLICANT AT EASE.

        At the start of the interview the interviewer should put the applicant
at ease and make him feel welcome. Give him a comfortable chair - one which
does not face an electric light or a window. Offer him a cigarette and spend
a few minutes in casual conversation. Sometimes it is also advisable to tell
the applicant the purpose of the interview and to explain that it is to both
his and the company's advantage to be sure the right person is placed on the
right job.

4. COVER ALL SIX AREAS IN THE INTERVIEW.

        The Patterned Interview is designed to cover systematically six major
areas of information about the candidate -- his work history, education and
training, his family background, financial situation, domestic and social
situations, and his health record. The interview starts with ordinary questions
concerning work history and education, which the applicant expects to be asked.
During this period a good relationship can be established with the applicant.
After the conversation is rolling, and the candidate is "warmed up," the
interviewer can probe successfully into more personal matters such as his domestic
and financial situation.

5. BE SURE TO GET THE ANSWER TO EACH QUESTION.

        Each question on the interview form is included for a particular
reason. The form has been developed after long experience and includes those
questions which have been found most likely to be significant. Obviously, each
question will not produce a significant answer in every interview. A particular
question may only rarely produce worth while information, but when it does, the
reply may be extremely valuable.

6. ASK PERSONAL QUESTIONS NATURALLY.

        It is impossible to make an adequate interpretation of the interview
unless information about the applicant's personal affairs is obtained. Frequently
inexperienced interviewers are reluctant to ask about an applicant's financial
status or other personal matters for fear of being rebuffed. Yet, these personal
areas have an important bearing on the applicant's job success and must be covered.
If the interviewer adopts the attitude of assuming the candidate will give the
information, he will almost always be successful in getting it.

7. LET THE CANDIDATE DO THE TALKING.

        This is the cardinal rule of interviewing. The interview is a fact-
finding process. The candidate has the facts and should be encouraged to talk
and to volunteer information. Remember that the interviewer has one factor in
his favor --- the candidate will be talking about his favorite subject, namely,
himself. If the interviewer conducts himself properly, he should have no trouble
in getting the whole story.

8. TAKE ADEQUATE TIME FOR THE INTERVIEW.

        Never hurry an interview. If the candidate pauses for a few moments,
wait patiently without questions or comments. Some people are not rapid
conversationalists. Often it takes time for an applicant to collect his thoughts

when he tries to recall facts from ten to twenty years or more in the past. Remember that he is under some strain and is trying to make the best impression possible.

9. HOW TO ASK QUESTIONS.

One of the worst mistakes an interviewer can make is to read the questions mechanically from the form. These questions are designed as guides only; they are there to remind the interviewer of the areas in which he needs full information. To help the interviewer phrase the questions in his own way, many of the questions on the forms have not been stated in complete sentences. A few questions are, however, stated in full, because experience has shown that a particular wording generally gets the best results.

10. AVOID LEADING QUESTIONS.

Leading questions should never be used in the interview. They give the candidate a ready-made answer and an opportunity to avoid embarrassing situations. If, for example, the interviewer asks, "You left school to go to work?", it is easy for the candidate to answer, "Yes," even though if asked to volunteer his answer he might reveal that he was expelled from school. Any questions which can be answered "yes" or "no" give the applicant an easy way out and do not encourage him to talk freely.

11. THE ORDER OF QUESTIONS CAN BE CHANGED.

There is no objection to changing the order of the questions, if the change occurs naturally in the conversation. Never halt the flow of conversation or ask the candidate to hold the information until later in the interview. Merely record it in the proper place on the form.

12. AVOID MAKING MORAL JUDGMENTS.

Regardless of how the interviewer feels about statements made by the candidate, his personal feelings should be kept hidden. The importance of creating a sympathetic, persuasive atmosphere cannot be overemphasized. Criticism by the interviewer, either spoken or implied, will discourage the candidate from talking freely.

13. RECORD THE ANSWERS AS THEY ARE RECEIVED.

A written record of the information given by the applicant is necessary for several reasons. It must be available at the time the over-all evaluation of the candidate is made, because no interviewer can possibly remember every fact about the candidate. A written record puts all of the facts in an organized form so that the interviewer can make an objective analysis of the applicant's qualifications. Furthermore, in some cases more than one person in the organization must pass on the candidate's qualifications. A written record is essential for such a review.

The theory that writing during the interview will deter the free flow of conversation has been completely exploded by years of experience with this method. After the first few questions, the candidate usually forgets that the interviewer is recording his answers. Many candidates are even reassured by by the fact that the interviewer is using a definite form, and that all candidates go through the same procedure. The applicant's answers should be recorded as briefly but as accurately as possible.

14. ALWAYS GET EXACT DATES.

It is essential that the applicant account for the entire period of time since he left school until the present. The month as well as the year of starting and leaving each job should be recorded, and gaps should be thoroughly probed.

15. CHECK INCONSISTENCIES CAREFULLY.

When inconsistencies are encountered, call them to the candidate's attention in a friendly manner. Give him an opportunity to explain.

16. HOW TO USE THE RED QUESTIONS.

The questions printed in red on the interview form are designed to help the interviewer to obtain complete information and to interpret its significance. They indicate the possible importance of certain replies to the questions and suggest areas which should be investigated. These questions are for the interviewer's use only. Applicants are never asked them.

17. PROBE FOR THE WHOLE TRUTH.

When the interviewer feels that the candidate's answers do not reveal all of the significant facts, he should depart from the questions on the form and probe for the whole truth.

18. HOW TO HANDLE RESISTANCES.

If an applicant becomes defensive, the interviewer can handle the situation in one of two ways. The simplest method is to drop the question and come back to it later in the interview. The second approach, which is more direct, is to explain that all applicants are asked these questions and that they provide necessary facts for deciding whether the candidate is qualified for the job. Then add, "But if you have some reason for withholding this information, naturally we won't insist." A pause after this statement may induce the candidate to speak. It puts him in a position where he must provide the desired information or explain why he refuses to do so.

19. SELL THE JOB ONLY WHEN YOU ARE SURE YOU WANT THE APPLICANT.

Many interviewers made the serious mistake of selling the job to the candidate before they have decided that they want to hire him. Of course, the nature of the job should be explained to the applicant, but any selling should come after the interview, and only if the interviewer feels that the candidate should be accepted. If he has been sold on the job before the interview and turns out to be unqualified or undesirable, the problem of rejecting him becomes twice as difficult. Furthermore, in selling the job at an early stage, the interviewer's enthusiasm may lead him to lose sight of the fact that he is supposed to make an objective appraisal of the candidate.

20. CONCLUDING THE INTERVIEW.

If it becomes apparent that the candidate is unqualified, the interview may be concluded at any logical stopping point. The applicant should be told that his qualifications do not match those necessary for the job, and he should be thanked for applying. If the interview is completed, the interviewer should

either make an over-all rating of the candidate and inform him of the decision or tell him when the company will let him know what the decision is. It is extremely important to retain the applicant's goodwill by terminating the interview graciously.

Interpreting the Patterned Interview -
The Basic Character Traits

When the Patterned Interview is completed, sufficient facts should
be available to permit a sound prediction of what the applicant will do. But
before the interviewer can make such a judgment, he must know what the facts
mean. Therefore, the next step is to interpret the information which has been
gathered.

To predict what an applicant will do, it is necessary to determine:
(1) the extent to which he possesses certain basic character traits, (2) his
motivation and (3) his emotional maturity. All of these factors can be evaluated
from the comprehensive review of the applicant's life which the Patterned
Interview provides.

An individual's character traits are nothing more than his basic
habits. The importance of various character traits will vary from job to job,
but the following traits must usually be considered as essential for any job;
stability, industry, perseverance, loyalty, self-reliance, and ability to get
along with others. In some instances, leadership and competitiveness are also
important. The evaluation of each of these eight traits is discussed below.

The extent to which an applicant possesses a particular trait can
be determined from the pattern of his past behavior. These habit patterns
manifest themselves again and again in the applicant's life and are clearly
evident from the Patterned Interview record. The interviewer should have
little difficulty in evaluating them. Two warnings are in order, however:

1. Judgments should always be made on the basis of what the applicant has
    done; not on the basis of his alibis, excuses, and promises.

2. It is the pattern of the applicant's behavior which is important: the
    interviewer should never jump to conclusions on the basis of isolated
    instances.

The key to what a man will do is what he has done throughout his life. Basic
habit patterns rarely change.

Definitions of the eight character traits and explanations of how
they are evaluated in the Patterned Interview follow. These discussions should
make it clear that only common sense judgments are required in order to eval-
uate an applicant's basic character traits.

STABILITY -- The extent to which a person has shown the habit of remaining
on one job, in one line of activity and in one place of residence for a reas-
onable length of time. Evidences of stability will be found in answers to
such questions as:

1. Has he remained on his jobs a reasonable length of time? OR Has he
    jumped from job to job?

2. Did he scatter his energies in school among many different activities?
    OR Did he concentrate on just a few and make a success of them?

3. Did he stay in one college? OR Did he try several colleges?

4. Has he lived in the same place for a reasonable length of time? OR Is he constantly changing his residence?

5. Has he kept the same hobbies and social interests? OR Is he constantly trying something new and then dropping it?

6. Has he remained married? OR Has he been divorced, separated, remarried?

The key question with regard to stability is whether the applicant will remain on the job long enough to bring the employer an adequate return on the money invested in him.

INDUSTRY -- The extent to which a man has the habit of working steadily, voluntarily, conscientiously, and productively on whatever job he is given. In other words, is he the type of person who is uncomfortable if he is not occupied with some constructive activity? The most important areas to consider are these:

1. Has he worked steadily and made progress on his jobs? OR Have there been many periods of idleness? Have they been long?

2. Has he been promoted and had merit increases? OR Has he stayed on the same job and received only automatic increases, if any?

3. Has he chosen hard jobs? OR Is he always looking for an easy way to earn a living?

4. Has he shown initiative on previous jobs? OR Has he just coasted along?

5. Did he apply himself in school and make good grades? OR Did he take it easy and just barely get by?

6. Did he start working at an early age or take part in constructive activities? OR Did he spend all of his time as a boy in play?

The key questions with regard to industry are whether the man likes to be busy, whether he accepts a tough job as a challenge, and whether he actually works hard, not merely talks as though he were a hard worker.

PERSEVERANCE -- The extent of a man's capacity to persist in an activity despite difficulties and opposition. It is the habit of finishing what he starts. Evidences of perseverance will be found in answers to the following questions:

1. Has he carried his education through to a logical stopping point - a graduation? OR Did he quit in the middle of his schooling?

2. Has he stayed on tough jobs? OR Has he quit when the going got rough?

3. Does he keep his enthusiasm for a new job? OR Does he become easily discouraged.

4. Has he completed any night or correspondence courses he has taken? OR Has he dropped the courses before the end?

The key question with regard to perseverance is whether the individual has the habit of finishing what he starts to the point that he can be counted on to finish any task which may be assigned to him.

LOYALTY -- The extent of a man's willingness to put the interests of others before his own and, if necessary, to go beyond the ordinary requirements of his job to serve the interests of his employer. The loyal individual is the one who identifies himself closely with the organization and is a member of the team. He is essentially unselfish. The extent of a man's loyalty may be found in the following areas of the interview:

1. Does he speak well of his former employers, his wife, family, and the organizations to which he belongs? OR Does he state that his bosses were "dishonest," "unreasonable," or "partial to pets," and that even his wife has many shortcomings?

2. Does he boost others? OR Does he "knock" at every chance he gets?

3. Has he usually done more than his duty in helping out friends, relatives, business associates, community, and employer? OR Does he always look out for himself first?

The key question with regard to loyalty is whether he will consistently put the interests of his supervisor, his associates and the company before his own.

SELF-RELIANCE -- The extent to which the man has the habit of doing things for himself rather than depending upon others to help him. It is his ability to stand on his own feet and to solve his own problems. Evidences of self-reliance are found in the answers to the following questions:

1. Has he found his own jobs? OR Has he always depended on friends and relatives to find his jobs for him?

2. Did he become self-supporting at an early age? OR Did he depend on his parents for help as long as possible?

3. Has he accepted the financial responsibilities of his family? OR Has he let his wife or relatives carry his responsibilities?

4. Does he seem to get things done under his own power? OR Is he afraid to make decisions or assume responsibility?

5. Did he finance his own higher education? OR Did he go without it or let his parents pay his way?

6. Has he enjoyed jobs requiring self-reliance? OR Has he been happier when others could make decisions for him?

The key question with regard to self-reliance is whether the man will be able to stand on his own feet without constant assistance from his superiors or others.

ABILITY TO GET ALONG WITH OTHERS -- The extent to which a man can make and hold friends, maintain good working relationships with his supervisors and associates, and obtain good personal acceptance by others. Evidences of this trait will be found in these questions:

1. Did he get along well with others on his past jobs? OR Was he constantly having difficulty in his relations with people?

2. Did he like the people he worked with? OR Does he make unfavorable comments about his past associates?

3. Was he most successful in jobs in which he had to work with others? OR Was he most successful where he could work alone?

4. Does he enjoy games and sports in which he must play with others? OR Do his hobbies and interests show that he tends to withdraw from others?

5. Does he seem to have good relationships with his family? OR Does he have chronic domestic and family troubles?

6. Does his school record show that he got along well with teachers and fellow students? OR Was he always in difficulty with teachers and students?

The key question is whether the applicant's past behavior reveals that he likes and gets along with people and that they accept him.

LEADERSHIP -- Leadership is the capacity to inspire confidence, admiration, and trust in others so that they turn to the man for help and guidance. Evidences of leadership will be found in the responses to these questions:

1. Did he enjoy being a supervisor? OR Would he rather have been "just an employee?"

2. Was he able to keep a supervisory job? OR Was he ever demoted back to the ranks? If so, why?

3. Did he achieve positions of leadership in school activities, in the social groups to which he belongs, in civic, lodge, and church activities? OR Was he content to be just a member of the group?

4. Is he the leader in his home? OR Does his wife run the family?

5. As a child, was he able to hold his own with his playmates? OR Did he fail to develop habits of leadership at an early age?

The key question with respect to leadership is whether the applicant has been a leader and whether there is evidence that others accept his leadership.

COMPETITIVENESS -- The extent to which an individual prefers activities in which it is possible to compare his achievements with those of others or with his own past record. Evidences of this trait will be found in these areas:

1. Have his previous jobs involved competition with others? OR Has he
    shied away from jobs which are competitive?

2. Has he won any competitive prizes, letters, or other awards? OR Has
    he been content to let others outshine him?

3. Has he taken part in activities, such as sports, which involve compe-
    tition? OR Has he preferred activities, such as reading, in which
    there is no competition?

        The key question is whether the applicant's past behavior shows
that he can be expected to compete with others and to try to excel them.

        As will be pointed out in the section dealing with the over-all
rating, not all of these character traits are necessary or even desirable
in the same degree for all jobs. However, the degree to which a partic-
ular applicant possesses them must be evaluated to determine the extent to
which he is fitted for any given job.

Interpreting the Patterned Interview -
Motivation

In addition to possessing the necessary "can-do" and having the pro-
per character traits, an applicant must have two other qualities if he is to
succeed. One of these is emotional maturity, which is discussed in the next
section. The other is motivation.

Motivation consists of the forces within an individual which cause
him to stay on the job, to work hard and to be a conscientious employee. There
are three factors which affect an individual's motivation with regard to a
particular job:

    1. The needs, drives or hungers within the individual which spur
        him to action. Most typical among these are:

        a. The need for economic security (the desire to maintain a
           good standard of living for himself and his family, to accept
           financial responsibilities, and to provide for the future)

        b. The need for recognition - the desire to improve his status
           (dissatisfaction with present level and the urge to acquire
           a higher standing or more prestige)

        c. The need to understand - (fascination with a particular type
           of activity, such as chemistry -- in short, his interests)

        d. The need to excel - rivalry or competitiveness (the aggres-
           sive desire to surpass or win out over others)

        e. The need to achieve - conscientiousness and craftsmanship
           (high personal standards of performance)

        f. The need to acquire - acquisitiveness (the desire to get and
           hold something for one's self, such as money, rare books, etc.)

        g. The need to serve - altruism (the desire to help others or
           to fill a useful role in society)

    In one individual all of these needs may be present. In another
    individual particular needs may be almost totally lacking. But in
    any event the various needs of a particular individual will pro-
    bably not all be equal in strength.

    2. The situation of the individual, with special reference to the
        extent to which is needs are already being satisfied independ-
        ently of the job for which he is being considered. For example:

        a. He may already have ample means to satisfy his economic needs
           (private income, a wife who works, or a pension)

     b. His status or his standards may already be such that he has no incentive to improve himself

     c. His interests may be in fields unrelated to the job

     d. He may already be satisfying any need for aggressive competition (for example, in sports)

3. The principal needs of the individual which remain to be satisfied on the job -- i.e., which are not fully gratified off the job. The strength of those needs and the extent to which they are unsatisfied off the job determine the applicant's motivation.

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How Motivation is Judged with the
Patterned Interview

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The determination of an applicant's needs and the extent to which they are gratified by his off-the-job situation is readily accomplished with the Patterned Interview. Just as in evaluating the character traits, the applicant's past behavior is carefully scrutinized for consistent evidences of the expression of his principal needs (e.g., a definite pattern of attempting to improve his status). The applicant's present off-the-job circumstances are next considered to determine the extent to which these needs are being satisfied by outside activities.

Finally, this information is combined to determine the principal needs of the individual which are not being satisfied off the job. If the applicant is only satisfying his principal needs to a slight degree off the job he may be considered to be well-motivated. If, on the other hand, he has many outside sources of need-satisfaction which gratify all of his principal needs, then the applicant is poorly motivated.

The key question: Does the applicant have sufficient motivation to stay on the job, to work hard and to be a conscientious employee?

Interpreting the Patterned Interview -
Emotional Maturity

It is a fairly common experience to meet people who are highly intelligent, well educated and personally very charming, but who show consistently poor judgment and a complete lack of ordinary common sense. They do foolish things which get them into difficulties. Then they do even more absurd things, which not only fail to help, but which often make the situation worse. Such people seem to have no capacity to be realistic in their thinking, to discipline themselves, to consider others, and in general, to have an adult outlook on life. They are actually children living in an unreal wish-world of their own creation - they are immature people. They may have positive traits such as industry, ability to get along with others, charm, and so on, and still be liabilities to employers because of their immaturity.

No one ever outgrows his childish behavior patterns completely - complete maturity is practically non-existent. This is probably fortunate - it is immaturity that adds the variety, sparkle and color to life. But it is the degree to which a person possesses it that counts. An individual can exhibit immaturity from a very minor to an excessive degree.

A slight degree of immaturity can be tolerated in an employee. Indeed it may even be desirable. But an excessive degree spells danger for the employer. Studies have shown that as high as 90% of the "problem employees" in industry are immature. They lack self-discipline and consideration for others. Many are obviously lazy. They are usually unstable, chronic absentees, accident-prone, and constantly dissatisfied. They are the troublemakers and are often the perennial compensation cases.

The characteristic of immature people which poses the greatest difficulty for the employer and is hardest to reconcile with their frequent high level of intelligence is their unwillingness (actually, their incapacity) to think rationally and logically. They are simply not interested in straight thinking. "They want what they want when they want it" without regard for consequences or the rights and feelings of others. As a result, they cannot be relied upon to make sound judgments nor to act in a consistent manner.

The best way to understand immaturity is to compare the immature adult with a young child - the infant who is two, three or four years old. Qualitatively, the two are much alike. Immature adults are simply children who may have developed physically and intellectually but who have retained the infants outlook on life and incapacity for self-control.

The chief distinguishing traits seen in the behavior of the infant are the same as those that manifest themselves in the immature adult:

1. Dependence
2. Selfishness
3. Pleasure mindedness, (unwillingness to do anything unpleasant)
4. Disregard for consequences
5. Wishful thinking
6. Show-off tendencies
7. Lack of self-discipline and self-control
8. Refusal to accept responsibility
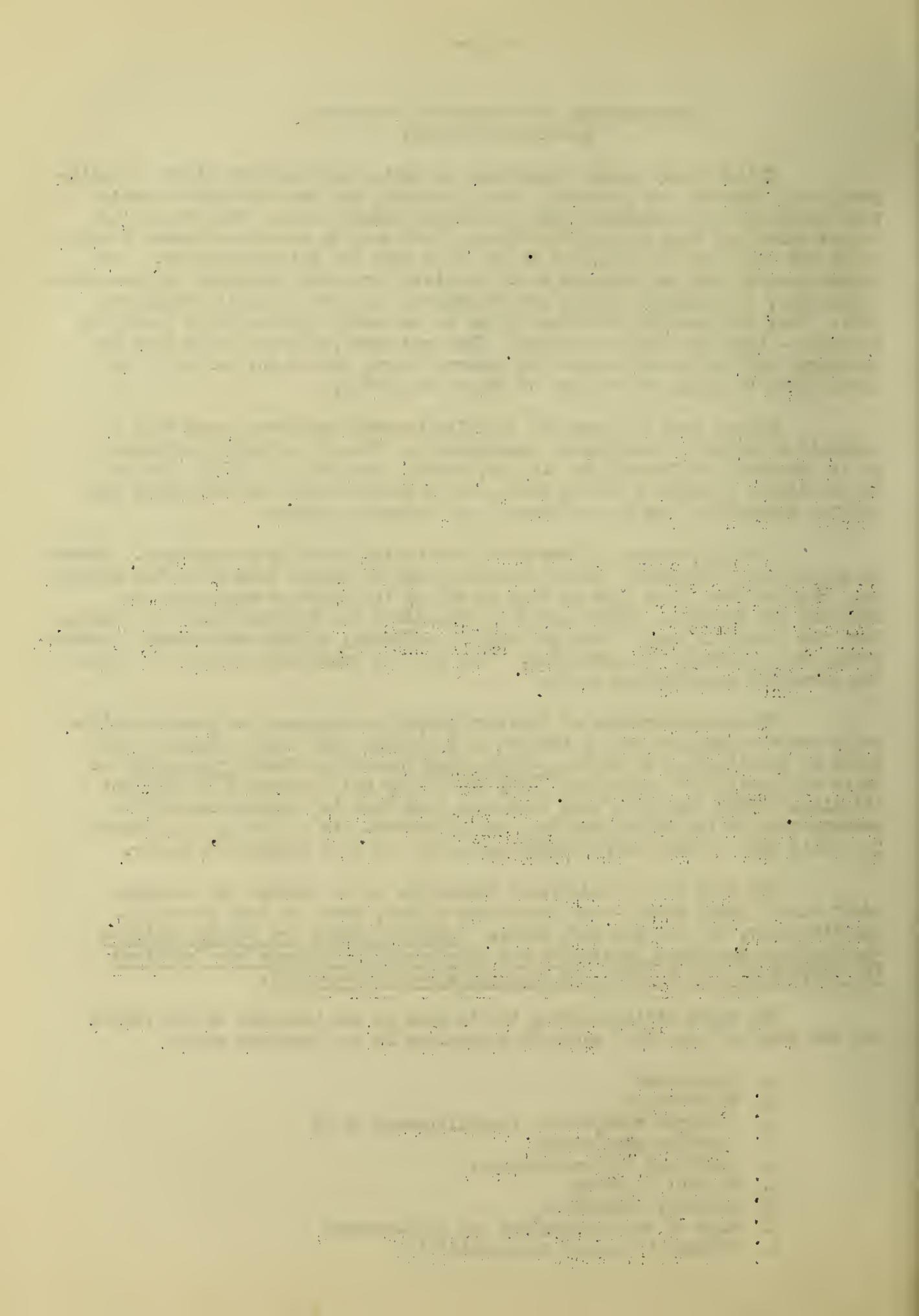
Specific evidences of immaturity as it is found in the adult are presented below.

Dependence

He cannot stand on his own feet. He is timid, fearful and a chronic worrier. He has strong feelings of insecurity and anxiety. He wants his superiors to help him as his parents did. He avoids responsibility and expects others to find jobs for him. Often he tries to deny, conceal, or compensate for inadequacies by showing behavior of opposite type: i.e. by becoming a bully or boaster.

Selfishness

He makes no personal sacrifice unless he can gain by so doing. May "put up a good front" to obtain his own ends. He is the "lone wolf" in a business - seldom identifying with supervisors, organizations, or clubs. He is incapable of loyalty to anyone but himself.

Pleasure Mindedness

He indulges in immediate pleasures. He may gamble, eat, or drink to excess. He spends money on small luxuries instead of saving for important purchases. He puts off until tomorrow things which should be done today. He may be a "clock watcher" or one who "lives for the weekend." He quits jobs to take extra vacations, or goes off on a lark that offers more pleasure than staying on the job.

Disregard for Consequences

He has a happy-go-lucky disregard of consequences. He drives a car after drinking heavily, or indulges in "horse play" when surrounded by dangerous machinery. He goes into debt because he lives beyond his means - then borrows from friends or loan agencies to meet an emergency. He loses his credit standing or is forced into bankruptcy.

Wishful Thinking

He has never outgrown his wishful daydreaming. If he wants to do something badly, he may convince himself that it is the right thing to do. He gets into debt and then plays the horses to regain his losses. The more he loses the more he bets. His wish to win is so powerful that he can't admit to himself that he might lose. He may inflate the importance of past jobs, the level of earnings, and the number of people he supervised on previous jobs. He dreams of success instead of working for it.

Show-off Tendencies

His show-off tendencies may be desirable on some jobs if properly controlled; e.g., public speaking, dramatic work, training others, demonstrating products, etc. On more routine jobs they are a decided liability. He may "show off" on the job to the point of becoming a nuisance or a safety hazard. He may be a braggart. He may be a hypochondriac who uses his illness as a means of attracting attention to himself.

Lack of Self-Discipline and Self Control

He gives way to his emotions easily. He has not learned to pause, take stock, or think through an activity. He creates emotional situations where none are justified. He may be prone to temper tantrums. He can't take criticism or accept constructive suggestions. He cannot look at his part in a series of events in an objective manner.

Refusal to Accept Responsibility

He maneuvers others into carrying his share of the load. He may be expert at making excuses or covering up past failures. He may rely on his wife for additional income so he can spend his own earnings foolishly. He may refuse jobs requiring responsibility, or accept the jobs and fail in them. When subjected to pressure, he yields and subsequently attempts to clear himself with excuses. He may feel society or the government owes him a living.

The Importance of Maturity

There is no sharp line of demarcation between mature and immature individuals. As indicated, everyone shows immaturity in some degree. However, it has been estimated that at least one-fourth of the adults in this country show evidence of serious immaturity. This does not mean that the majority of these persons are unsuitable for employment. Some exhibitionists, for example, have capitalized on their immaturity by becoming highly successful salesmen, orators, lawyers, and actors. On the other hand, a cost clerk's job does not call for show-off tendencies, nor is high-speed machine safely manned by someone with these tendencies. So, depending upon the job requirements, some manifestations of immaturity can be assets; other immature traits may not be too important one way or the other; and still others may be distinctly undesirable. However, people who show many clear evidences of immaturity are poor risks for most occupations.

How Individuals Become Mature

Why is it that some children develop into mature, realistic individuals with desirable character traits, while others remain immature all during their lives? The answer lies, for the most part, in the environment in which the child was raised. At an early age most children begin to associate with other boys and girls. They also begin to be influenced by their parents, other family members, teachers, pastors, and similar persons. As a result of these contacts, most children soon discover that if they are selfish, refuse to accept responsibility, or exhibit other immature traits, they will be subjected to various unpleasant social pressures. They will not get what they want and will not be accepted by the others. They are forced to learn, often the hard way, that they must be realistic in their thinking. They learn that they must be considerate of others, satisfy their own needs and be able to discipline themselves.

Why Some Individuals Never
Become Mature

The early life of the child who develops into an immature adult is usually marked by this distinguishing feature: He has been over protected from contact with reality; he has not been entirely weaned; he has been kept

a child too long. In short, he has been spared the hard knocks which build character self-discipline, and a realistic outlook on life. The childhood environment which most often leads to the carrying over of infantile habits into adulthood is marked by one or more of the following conditions:

1. The child is the baby of a large family. The other children may be taught always to make concessions to him and spoil him in other ways.

2. The child is sickly. He is never asked to do anything for himself, is a constant center of attention, and is the object of pity and indulgence.

3. The parents are exceptionally indulgent to the child.

4. The parents alternately mistreat and spoil the child, so that he never knows where he stands. He is afraid to venture out of childhood.

5. The child is orphaned at an early age or his home is broken by death, divorce, or separation. He may be brought up by grandparents or other fond relatives, or by only one parent. As a result, he may be shown all the affection and protection which normally would be devoted to several children.

6. He is an only child who has never had occasion to learn to adapt himself to other children.

Under any of the foregoing circumstances it is almost certain that the child will retain many of his babyish, dependent, irresponsible, selfish characteristics. Either it has not been necessary for him to develop other more mature and socially desirable character traits, or he has been afraid to do so. As a matter of fact, many parents go out of their way to lengthen the babyhood of their children. Some mothers frankly state: "I don't want my baby to grow up." Often, as a result, he never does.

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Why Immaturity is Difficult
to Recognize

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As immature people grow up, they often become skillful at justifying (rationalizing) or concealing their childish tendencies. First, they become adept at excuse-making. The individual who shifts from job to job because he is unwilling to work hard enough to hold a position, or because his superiors do not treat him with the consideration which he received from his parents during babyhood, always has a plausible explanation for making each change which denies the real reason. In some cases, he will report that the work offered no future. In other instances, he will state that working conditions were terrible. In still other cases he will say that he was mistreated by his supervisors or associates. As a rule, the greater the immature individual's intelligence and the better his education, the more expert he is at finding "good" (but not necessarily "true") explanations for his behavior.

Second, many immature adults learn early in life to be affable or
"good" boys or girls. Such an individual learns to be "good" because people
like and are kinder to "good" children. And he discovers that "charm" can be
used to conceal his true motives. He learns to radiate good cheer and friend-
liness in order better to exploit others. This superficial good fellowship
becomes important to him even though it may involve buying "beers around"
with his last dollar. If he can induce others to like him, they will be less
critical of his short-comings, and it will be easier for him to mislead them
to his own advantage.

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How Immaturity is Detected Through
the Patterned Interview

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The basic principle that should be followed in interpreting the
findings of the Patterned Interview is that all judgments must be based upon
facts, not excuses or promises. It is what the applicant has done that is
important. His explanations and justifications of his failures and short-
comings, or his promises of what he will do in the future cannot substitute
for these facts. All too often, the applicant's explanations are extremely
impressive, but they are not the "real" or "true" key to his make-up. As
such, therefore, they are unreliable for predicting what he will do if he is
employed. The Patterned Interview has been designed to provide comprehensive
and detailed information on the applicant's actual record in all the important
phases of his life. Evidences of immaturity may be found in any of the six
principal areas of his background: in his work history; his school record;
his early environment; his financial background; his domestic and social
situation; and his health record. By carefully reviewing what the applicant
has done in the past you can see with surprising clarity evidences of
maturity or immaturity.

The technique used in the Patterned Interview is specifically de-
signed to break down the immature adult's excuses and to reveal the essential
falsity of the justifications which he offers to explain his shortcomings.
It serves as a sort of fluroscope. It enables you to see the applicant as
he actually is, not as he wishes to appear. It helps you to look behind the
"front" of half-truths, excuses, evasions, inconsistencies, and outright
falsehoods which the individual builds up to conceal his true nature. The
Patterned Interview makes it possible to obtain the "inside dimensions" of
the man.

Making the Over-all Rating

The final step in the selection procedure is to make an over-all rating on each applicant. This rating is extremely important because it embodies the interviewer's prediction of the applicant's probable job success and serves as a basis for the decision to accept or reject the applicant for the particular job.

The Form of Rating

The over-all rating is made on the basis of a four-point scale. "1" means that the candidate is outstandingly qualified for the particular job in question; "2" means that he is well qualified but not outstanding; "3" means that he is marginally qualified; and "4" means that he is unqualified. The use of a four-point scale is designed to overcome the tendency of the interviewer to rate every candidate as "average". It forces the interviewer to decide whether the person is above or below the average point.

The Basis for the Over-all Rating

The decision as to which of the four categories an applicant belongs in is based on a review of all the facts. It is not a mathematical summing up of points, but rather a comparison of the applicant's qualifications with those required by the particular job. For example, no matter how well qualified the applicant may be in other respects, if he completely lacks one qualification which is essential for the job, he should be rated a "4". There is no possibility of using any sort of a statistical or averaging process in making the over-all rating.

Furthermore, over-all ratings cannot be made in a vacuum; they should always be made in terms of a specific job. It is quite possible for an applicant to be a "1" for one job and a "4" for another job. Most vice-presidents, for example, would not be good sweepers, and vice versa. What the applicant can do and what he will do must always be matched with the requirements of a specific job.

Evaluating the Can Do Factor

Whether the applicant can do the particular job depends on his technical knowledge, skills, specific aptitudes, mental ability, and physical qualifications. These factors are evaluated on the basis of tests, checks with other sources and the work and school history sections of the Patterned Interview. Most experienced interviewers have little difficulty in evaluating the can do factors, provided they have a thorough knowledge of the job requirements.

Evaluating the Will Do Factor

The applicant's basic character traits, motivation, and emotional maturity determine whether he will do the job. The checks with other sources and the Patterned Interview provide the necessary information.

Each one of the character traits, motivation, and emotional maturity should be evaluated separately. Many interviewers find it helpful to use a word rating scale of "Outstanding," "Good," "Marginal," and "Poor" in evaluating these factors. It should also be kept in mind that some of the character traits may be relatively unimportant or even undesirable for particular jobs. Too much leadership, for example, can be a distinct disadvantage on a routine, closely supervised job. Similarly, certain manifestations of immaturity may be desirable or permissible on a particular job while other immature traits are distinct handicaps to job success.

The Actual Over-all Rating

The assignment of a particularly over-all rating consists of the weighing of the applicant's strong points and weak points. Few individuals will have just exactly the qualifications desired. On the other hand, few applicants will be completely lacking in qualifications. The over-all rating expresses the interviewer's judgment concerning how the applicant's strong and weak points will affect his job success. Depending on how successful he predicts the applicant will be on the particular job, the interviewer should rate the applicant:

"1" -- Outstanding. (He possesses all of the necessary qualifications for the job, and has virtually no undesirable characteristics.)

"2" -- Well-qualified but not outstanding. (He can do the job and shows only a slight deficiency in one of the necessary character traits. If the deficiency is only slight it should not bar him from serious consideration for the job.)

"3" -- Marginally qualified. (There is some doubt that he can do the job; he is definitely deficient in one necessary character trait; he is somewhat deficient in several character traits; he is slightly lacking in motivation, or he is somewhat immature. He may be hired if the need for men is great and there are no better candidates available.)

"4" -- Unqualified. (He cannot do the job; he has serious deficiencies in one or more of the character traits; he is seriously lacking in motivation; or he is seriously immature. The chances of his being successful are so slight that he should be rejected regardless of the need for men.)

Who Should be Hired?

The most important function of the over-all rating is in deciding whether the candidate will be hired. A company may decide to set a standard whereby it hires only "1's" or "2's". In a tight labor market, however, the company may be willing to hire some "3's". The decision as to where the company will draw the line in its hiring must be a realistic one, founded upon the company's need for manpower and the condition of the labor market. But these factors should not in any way influence the over-all ratings on specific applicants. They are important only in determining whether "1's"; "1's" and "2's"; or "1's", "2's" and "3's" will be hired. In this way, regardless of economic factors, the company uses the same yardstick at all times. It knows what quality of applicants are being hired. If marginal candidates are hired, there are no surprises when they become mediocre employees.

Conclusion

Through the use of this step-by-step program for selecting employees, it is possible to select men and women who are <u>inherently</u> stable, productive and satisfied. But sound selection is not enough; it is merely the essential first step. Employees must also be adequately indoctrinated, properly trained, given sound supervision, and provided with adequate outlets for grievances. All of these programs must be fitted together. They are all inter-related. Developing and maintaining a stable, productive and satisfied work force requires an <u>Integrated Personnel Program</u>.

UNIVERSITY OF ILLINOIS
Personnel Management Conferences, 1949
S e l e c t i o n   T e c h n i q u e s
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SUMMARY OF THE CONFERENCE SESSIONS

Ross Stagner
Professor of Psychology in L.I.R.

I **would like** to say just a few words at the beginning of this summary about the general problem of the relationship between the selection program and general management policy. I believe that, in starting off the discussion yesterday, I did not give quite as much consideration to that particular point as I should have, and there have been various questions coming up in the discussion groups about it. I think it is fairly obvious, of course, that the selection program is significant to all aspects of an industrial enterprise. It has a bearing on production, but also on sales, on office work, and particularly--as Mr. Gorby expressed yesterday--on public relations.

The selection program is a real part of management policy and it should be considered as such. A selection program is not likely to work very successfully if it doesn't have the backing of top management. It is not very satisfactory to try to introduce a selection program unless the people at the top are sold on it and willing to go along with it. It means more than just having the personnel man draw up a proposal for a selection program, submit it to the president, and have him say "o.k. we'll let you fool around with this stuff if you want to." The people at the top really have to believe in the importance of the selection program; recognize a need for it; and put this across to the people in the lower echelons of the executive organization. A program which is excellent on paper can be fouled up by the fact that foremen, office managers and other minor executives don't believe in it.

This is likely to be a serious problem in those organizations where executives have been accustomed to hiring their own people. The custom of course varies in different companies. In some places you'll find hiring centralized in the personnel office. In some cases you will find that hiring is completely de-centralized and most places have a sort of hybrid status somewhere in between those two. Perhaps the personnel office does some screening and then the departmental head does the final selection. Now obviously if you are trying to improve the selection program in connection with the application blank, telephone checks, tests, data, interviewing procedure--if you are trying to improve the selection program in regard to those things, but you have a de-centralized hiring policy--that is also likely to be pretty unsatisfactory. You may make your improvements in the personnel office, but the department head who is doing the hiring doesn't pay any attention to this change, and the result is you have gone to a lot of work and perhaps invested considerable money for no return. So there must be a recognition of the need for the improvement in the selection program and there must be cooperation by the executives if the thing is to be a success.

We tried to emphasize yesterday the importance of job specifications-- of knowing exactly what job you are hiring for and trying to fit the appli- cant to the particular job specification. As Mr. Cross pointed out in just the last few minutes, you do not set the same standards for an office manager as you would for a salesman (particularly a liquor salesman!) and certainly you would not set the same standards for executive jobs as you would for rank and file jobs. The quality of leadership may be a vital consideration in one situation and may be very unimportant in the other. So job analysis--finding out precisely what the individual is going to do on the job,--is necessary before setting up specifications in terms of intelligence, training, interest, motivation, and personality. Now of course these specifications must be made as clear as possible if you are going to have a good selection program.

I think it is also obvious that you cannot separate selection from wage and salary administration. If you haven't got a soundly established compensation program, your selection procedures are likely to be very unsatisfactory. At least you may pick the right people and you can't keep them after you've got them. So selection, training, wage policy, all these things have to be coordinated in order to get a successful human relations program.

Furthermore, selection has to be continuing program. There is no way by which you can come to us, or to a good consulting firm, and get a final answer to your problems. You can go to any expert in the field and say, "Here, please fix me up a selection program," and he may be able to fix up a selection program which is good for your organization as it is right now: making certain products, using certain processes, having a certain kind of labor force available to you; and in six months many of those circumstances may have changed. If you start using new machinery, your job content changes, and you need a new selection set-up for those particular jobs. If your organization changes, you have a new type of distribution of responsibility, and again your job specifications will be different. If a work simplification program is introduced, you cannot continue to use the same selection standards after the job has been simplified. Now these things seem awfully elementary, and perhaps I'm saying things that just aren't worth saying. But I have seen many companies try to continue to use a set of tests or a set of interview standards after the occasion had disappeared for using those particular devices and procedures.

I would like to emphasize that the process of evaluating the selection program should be going on all the time. We should constantly be critical of whether or not we are really picking out the right people for the jobs as they exist at this particular time.

Now with that general introduction to the problem of management policy and organization in relationship to selection, let me go over a few of the points that have come up in connection with the specific sessions that we have had. First, let's talk about the application blank. Out of the discussion groups it became apparent, to some of us at least, that the problem of determining the validity of the different items on the application blank was one which needed special emphasis. We throw things together on an application blank. Why do we put these particular items on? Why do you have height and weight on an application blank? Is the job one that requires physical strength? Are you hiring midgets or giants? Do you have any particular physical qualifications for the job? Does anybody pay any attention to it? Why is this particular information obtained?

The problem of record keeping in relationship to application blanks, I think, deserves particular emphasis in this connection. Do we know whether or not people who have certain characteristics really do make good employees? Let's take this question of height. It isn't beyond the bounds of imaginative possibilities, at least, that men over 6 feet tall are more likely to be successes on the job. On what job? Well, it might make a good deal of different, don't you think, as between different jobs in some cases. For salesmen, person to person salesmen, I believe height is an advantage. There have been some psychological data collected which indicate that height is a real factor influencing the success of the salesman.

But unless we keep records showing what kinds of employees have been successes in this particular job, and unless we check those records back against the application blank to find out whether these particular items really do have anything to do with job success, we are wasting paper; we are wasting the applicant's time, and we are wasting storage space by filing stuff away that doesn't contribute anything to the industrial organization.

Mr. Gorby reminded us yesterday afternoon that one of the ways of defining the purpose of a business is to say that a business exists to make a profit. Are we increasing the profits of our organization by multiplying forms, by making bigger and bigger forms with more pages, with fancy printing complete with cartoons and so forth, or are we simply increasing operating costs? Now obviously there are other considerations to be balanced there,-- for instance, the question of using the application blank as a kind of advertising device. If you have a department store, a public utility, some organization that deals with the general public so that every applicant is also a consumer, then the advertising aspect of the thing may very well be worth the money that's put in on it. But I want to stress, very heavily because it seemed to be so important in the discussions, this question of determining what is a successful employee and what characteristics does he really have.

It was even suggested that perhaps we ought to have a conference in which the problem of determining the validity of application blank items, test items, interview procedures, rating devices could be considered. How do you go about finding out what things are valid and what things are not? It's really very simple. You merely ascertain which employees are success- ful, and which ones are not, and check them back against their records. Of course the standard of success varies according to what kind of job and what kind of purpose you have in mind.

There were several other questions on the application blank but they came from very few individuals, and I think I am going to skip on down to the subject of testing. You showed a great deal of interest in this pro- blem of testing. Of course it is a complex subject in which there are a good many pitfalls. A lot of people think in terms of tests and then they use test instruments which are not suited for the particular purpose they have in mind. A friend of mine who was traveling in northern Ohio, teaching foreman training classes, turned up at my office one day with a very amusing story. He had been conducting classes in a small rubber factory up north of Akron, and he said the president of the company had a theory or rather he had a trick device. He had an application blank which was fairly long and he would have the applicant sit in his office--this was a small company so this wasn't too much of an honor--the applicant sat in his office and filled out this application blank. The president would surreptitiously time the individual to see how long it took him, and he was using that as if it were an intelligence test. The people who filled out the blank rapidly got a high score and those who filled it our deliberately and slowly got a low score. This instructor thought he would have some fun so he got the president, the vice-president, the production manager and two or three other top executives into the room and got them to take this application blank and fill it out, and the president took longer than anyone else! So he stopped using that particular device for selection because he was now convinced that it wasn't valid. (Of course he was obviously more intelligent than any of the others.) Unfortunately, it isn't always easy to get people to check on the validity of their own testing devices.

One of the things we must emphasize is that if you are going to use tests, they must be used in a situation that is appropriate. So, if you are going to try to use intelligence tests, that's fine for a situation where intelligence is important. But if you are hiring for mechanical jobs, then you want some performance test of the type that we had here for you to look at yesterday afternoon. (Incidentally, many of you seemed to enjoy them, after you got over your suspicions that we were going to try to psychoanalyze you on the basis of what you did.) Tests can be fun, and curiously enough they can have value even when they aren't picking the right people. One of my students was doing a thesis on the laundry and dry cleaning business in New England last year. He went down to Hartford and found a big laundry there, where they were giving tests. They had three different tests which they gave to all their applicants. Some personnel manager had installed these back in 1945 or thereabouts but had never gotten around to checking to see whether they were picking people who were successful on the job. A new personnel manager came in, in 1947, and he ran come correlations between turn-over, production record and things of that sort and came to the conclusion that these tests had a validity of approximately .00. That is to say, they were not discriminating in the least between the superior and the worst kinds of employees. But when they did a morale survey on the workers in the laundry, and asked them the question, "What do you think about the companies testing policy?" The opinion was practically unanimous that they thought it was a very fine idea because it showed that the management was interested in them as individuals. So the testing program was really serving a useful purpose, but it would have served a much more useful purpose if it had been based on valid tests! They weren't going to throw the testing program out, but they were going to try to find some tests that would correlate a little better with success on the job.

Now there is a feeling on the part of the discussion group leaders that there was too much emphasis on intelligence testing. We'd like to emphasize the value of clerical aptitude tests, stenographic tests, typing tests, mechanical ability tests—these various kinds which call for performance as opposed to mere general intelligence. And I would like to emphasize the point, which I did make yesterday, that there are many cases for which you ought to set a ceiling on the job, that you don't want to hire people above a certain level, or else they will become discontented and dissatisfied if the job doesn't offer enough opportunities. So we have this notion of hiring 90 percent of your routine people with an ability ceiling and hiring about 10 percent above that level—because they are going to be the people who will move up into the executive organization. In trying to pick these tests I think that you would be well advised either to go to a consulting psychologist organization, of which we've had two excellent representatives here, Mr. Seashore and Mr. Cross; I won't put in a plug for either of their firms specially, but they are both highly reputable organizations. Or you can go to a professor of psychology at a nearby college. Most college professors are willing to pick up a little spare change by serving as consultants, and they might be in a position to spend more time with you than the consulting organization. (Excuse me for putting in the plug for the professors; I can't resist the temptation to do that too.)

Now we are inclined in general to advise against the use of personality tests for selection purposes. There have been a great many questions raised about projective tests, such as the thematic apperception test and the Rorschach. Dr. Henry of the University of Chicago has gotten a good deal of publicity on his work in that area. I'd like to say this: the

thematic apperception test is one of the most extraordinarily difficult things to interpret that you could find in a long day's walk, and it is not feasible at this time—I don't think it is feasible for anybody to use thematic apperception tests—unless he has a very extensive training in professional psychology and a good deal of experience in industry (that is, if he is going to use it for industrial purposes.) I don't think that any organization could come in and train your personnel manager to use a device of that type. So you would have to hire a professional psychologist if you were going to venture into that field. If you have one, then that is fine. If you don't, then I would say leave it alone, don't get mixed up with it.

This patterned interview technique is much more satisfactory from the point of view of a trained amateur as opposed to a professional psychologist. Furthermore, and this is perhaps to some extent my own personal opinion, I think that some of the people who have been using projective tests have exaggerated how good they are. I mean, they get enthusiastic. You start using a test, you like it, it is your baby and you use it perhaps with a flair that you can't teach somebody else, and you claim that you get wonderful results. Well, sometimes you do, and maybe you forget about the cases where you didn't. Anyway, the projective test people are a little inclined, I think, to exaggerate what they can do. At any rate it is not an area which we can encourage you to venture into.

One question has come up that I think deserves a moment of attention. This is the question of the confidential character of test scores. It's one about which there is a difference of opinion. There is one rule which you can certainly follow, and that is that test scores must be confidential within the organization. I mean by that, that it is extremely hazardous to give foremen, office managers and people who are not trained in the use of tests—it is very hazardous to give them test scores. They are likely to become biased in their judgment of the individual employee simply because he got a score of a certain amount. If he gets a high score, the foreman says he's going to be a bang-up worker. He does poorly and the foreman finds excuses for him. He says, "well the machine wasn't working right, or it was too hot that day" or something of that sort, whereas if he hadn't known about the score, he would have been more critical about the employee's behavior. Conversely the man may get a low score, he comes in and does a good job, and the foreman just doesn't pay any attention to it. He's convinced this fellow isn't going to be any good, and he doesn't see the good work which he actually does. So I would say, the first rule is not to give test scores to supervisors.

The other question that frequently comes up is: do you give them to the applicant himself? Now my approach to that is one which is probably not too practical. I would like to sit down with the applicant, go over his test scores and say, "Now look, here are your strong points, here are your weak points. I think the kind of job you really ought to apply for is such and such." In other words I would use the test for counselling purposes. Now if you test a lot of people in the course of a week, you can imagine what that can do to your personnel organization. You'll be busy counselling people and you won't be doing your job for the company. A compromise solution there is to tell the applicant, if you are going to reject him, "Now we have a testing program here; we gave you those tests, and those tests are scored in terms of what kinds of people have been successful in our organization. These don't necessarily show that you wouldn't be good somewhere else. At some other job you might be a very fine worker and

you might have characteristics that would make you a success, but as far
as our particular job is concerned, these tests indicate that you probably
wouldn't be a success. We don't think we would be doing a favor to you
by giving you that job." Now many applicants will treat that as a brush
off and maybe it is; but I think it is a little more painless than to say
"No; you flunked the test" and let it go at that. And of course the former
is a more realistic way of presenting the thing.

There is another type of solution to this problem which is being
adopted in some communities, and which I would like to throw out just very
briefly for you consideration. In Pittsburgh and in some other communities,
industries have banded together to set up a community counselling agency.
This community counselling agency gives tests to anybody who chooses to
come. I mean it is a kind of free public service, and the applicant can
then say, "I would like these test scores sent to the Jones and Laughlin
Steel Company," or I would like these sent to the Koppers Company, or to
Boggs and Buhl. The tests then are given centrally; you don't have the
problem of repeating the test over and over. If five different companies
give the applicant the Wonderlic intelligence test, he'll probably be making
a very high I.Q. by the time he gets through, simply because he has had so
much practice. So a community testing service has an advantage there. It
also has the advantage that they can give counselling. They can say to the
applicant "The best kind of a job for you is thus and so" and you don't
get into this problem of the personnel manager being too busy to do that
kind of thing. So I'd like to throw out the general question: should small
industries, which cannot afford much of a testing program on their own,
should they pool their resources and set up a community agency which can
do this job much more satisfactorily than any of the individually?

Now one final point about tests and that's the question of relation-
ships with the union. The insistence on seniority has been cited by
several of you as a barrier to the use of tests, particularly for promo-
tional purposes. Most unions don't care about hiring; they don't care
about selection in our original sense. They do care very much about the
promotional techniques. Now I had an experience during the war which I
might cite as an illustration of what can probably be done here. It's
usable only when you have good relations with the union. (If you haven't
got good relations with the union, probably nothing is going to work very
well anyway.) We had a clause in the union contract in one of our plants
which said "promotions shall be based on seniority if ability is equal".
Then of course you get into that nice argument about when ability is equal.
The company had a merit rating plan. I took the rating blanks for several
hundred employees and by a very simple statistical computation, determined
that the probable error of a rating on this particular blank was 3 points.
We then pointed out, in accordance with good statistical procedure, that
4 probable errors--the distance indicated by 4 probable errors--can occur
by chance about once in 10 thousand times. Therefore we suggested to the
union a definition that when two workers were separated on the rating scale
by 12 points, then ability was definitely not equal and seniority would
not govern. If the distance between the two employees was less than 12 points,
then we would say ability was equal and seniority would govern. I don't
know whether it was my statistics or what it was, but the union accepted
that solution and we solved a good many conflicting problems in that way.
Generally speaking the union is concerned with avoiding favoritism. If
you can present an objective basis for making promotions, if you can present
data which they are sure are not based on favoritism or prejudice on the

part of the supervisor, they are quite likely to accept it. So I think if you present test scores as a means of determining ability which is completely free from any kind of prejudice on the part of the company, it is quite likely that they will accept it. Of course it has to be sold to them. You have to show them the test. You have to give them access to the forms and so forth; I don't think that's necessarily bad. So I think the union problem can be solved if we work at it.

Finally I'd like to talk about interviewing just very briefly. How good are our employment interviewers? The interviewer usually thinks he is pretty good. That's hardly surprising. He says "Well, I've been picking most of them right. Of course I get a good fellow once in a while but the production department handles him badly and he goes sour, but that's not my fault. That's the fault of the production supervisor." If we go to the production supervisor and ask him how the interviewer is doing, his opinion may be quite different. How do we evaluate the goodness of our employment interviewers? We have to go about it in exactly the same way that we do for anything else. We've got to find out whether he is picking people who are successful in terms of standards out there on the job. Now one way to do that is in terms of the kind of thing Mr. Cross was talking about a minute ago. The interviewer should rate every applicant on a scale. It might be one, two, three, four, five; it might be a, b, c, d. Then we should follow up those people who are hired, those who are discharged, and those who quit, and ask ourselves: what kind of ratings did these people get when they were interviewed? You may find that some of your interviewers are doing a very good job, and some of the other interviewers are doing a very poor job. In that case you've got a problem for training. The interviewing training program itself is an interesting one which I would like to get into, but it's beyond the scope of this conference.

In conclusion let me say just a few words about the approach of scientific psychology to industrial problems. We are all human; by which I mean that we act in terms of what we want (motivation), what we are capable of doing (ability), and what we have learned to do (training). The task of the industrial personnel program is to select people whose motives can be satisfied in the business, who have the appropriate abilities, and who have had the necessary experience.

But the organization as a whole must work on sound human relations principles. If threats, fear and insecurity are used to bully people into working harder; if promotions and rewards are arbitrary and capricious, based on favoritism; if jobs and authority are not clearly understood; if people are afraid to say what they think--if any of these conditions exist, you will have trouble.

A good selection program alone is not a solution to management's problems. With a good over-all policy, and good execution, it will be of tremendous value to you.

Conference on Selection Techniques

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